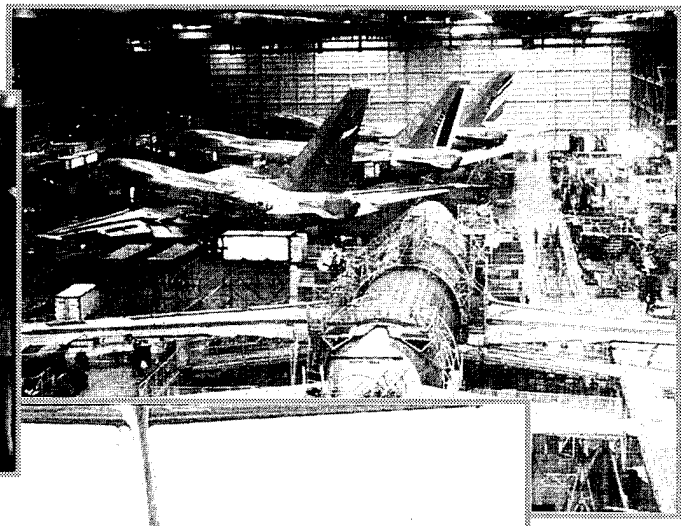
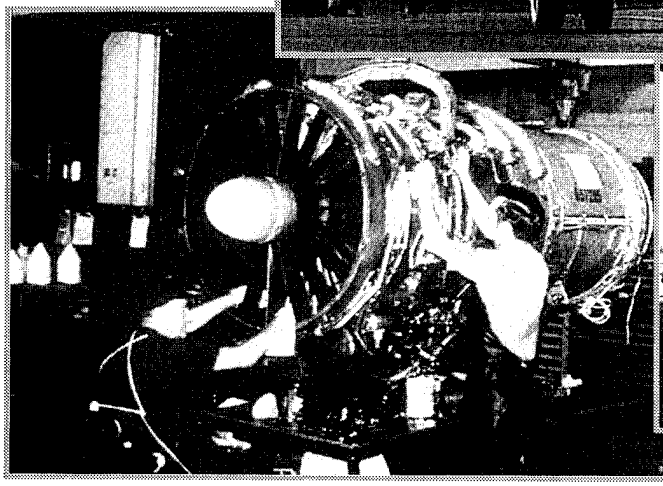
Aviation Safety Plan





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Federal Aviation Administration

February 1996

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Table of Contents

Appendices

Executive Summary

As a follow-up to the January 1995 Aviation Safety Conference and the Aviation Safety Action Plan (Zero Accidents: A Shared Responsibility), a group of senior officials from the aviation industry, labor, and government determined that an ongoing review of aviation safety issues and initiatives is necessary. This review will ensure that resources and activities are focused on achieving zero accidents. The group of senior officials formed a steering committee to follow-up on work from the Aviation Safety Conference and provide leadership vis-à-vis safety issues. The steering committee, along with the chairs and co-chairs of the January 1995 conference, decided that a review of safety issues and initiatives was needed. The chairs and co-chairs of the original six workshops (or replacements appointed by the steering committee) identified and invited the necessary aviation safety experts to the Aviation Safety Initiative Review held in New Orleans, Louisiana, on December 6 and 7, 1995.

On December 6, 1995, after a short plenary session, the six groups met independently as workshops to review the themes, issues, approaches, and initiatives that resulted from the January Safety Conference. The workshops assessed the accomplishments of the initiatives to date and made revisions as necessary. These revisions included updating, adding, and removing completed items; and transferring items to other workshops. In the afternoon of December 7, 1995, the workshops reported their results to the entire group and honored guests including Mr. James Hall (Chairman of the National Transportation Safety Board) and Mr. David Hinson (Federal Aviation Administration (FAA) Administrator). Chairman Hall and Administrator Hinson then provided their insights regarding the meeting, its purpose, and results.

FAA Administrator, David Hinson, addressng meeting participants.
(Courtesy of Federal Aviation Administration)

The highest priority issues and initiatives for each workshop were:

Crew Training:

- Streamlining the rulemaking process, and
- Continuing implementation of the Advanced Qualification Program

Air Traffic Control & Weather:

ATC:

- Implement runway incursion initiatives (as described in the Runway Incursion Action Plan), and
- Implement the ASAP program in Air Traffic

Weather:

- FAA assume the leadership role for aviation weather, and
- Improve weather observations and forecasts.

Safety Data Collection and Use:

- The government implement regulatory and/or legislative initiatives to allow flight operations quality assurance (FOQA) protections, and
- The Air Transport Association initiate FOQA data forum.

Application of Emerging Technologies:

- GPS deployment, and
- Greater consideration of Human Factors in the design of new systems.

Aircraft Maintenance Procedures and Inspections:

- Expedite FAA Advisory Circular on air transportation partnership of safety programs, and
- The government provide protection for reporting maintenance errors.

Flight Operations Procedures:

- Create industry forum for the development and refinement of operational procedures, and
- Develop and approve a process for certification of designees authorized to design and approve approach procedures.

The steering committee has suggested an ongoing process for these reviews that includes more meetings throughout the year by each workshop and periodic updating of the Aviation Safety Plan. The steering committee has recommended that each set of workshop chairs and co-chairs develop a set of specific actions for accomplishing the initiatives and negotiate commitments of responsibility for the actions with the appropriate parties.

"I am encouraged by the enthusiasm and efforts of the industry and labor to further the exchange of aviation safety data for the mutual benefit of all."

Christopher A. Hart,
FAA Assistant Administrator for System Safety

Aviation Safety Initiative Review participants.
(Courtesy of Federal Aviation Administration)

Introduction and Overview

The purpose of this document is to describe the continuing partnership in the aviation community to improve aviation transportation safety. The document begins by providing some background on this effort and a summary of the Aviation Safety Initiative Review held in New Orleans, Louisiana on December 6 and 7, 1995. The ongoing process proposed by the steering committee for future reviews as well as the next steps required are also described. The core of the document reports on the detailed results of this technical meeting broken out by workshop. These detailed results include: significant accomplishments since the January 1995 meeting; themes, issues, approaches, and initiatives for 1996; significant changes from the 1995 initiatives; identification of the highest priority aviation safety initiatives for 1996; and cross-cutting issues with the other workshops. Two appendices are included. The first provides a list of meeting participants. The second tracks the issues, approaches, and initiatives from the February 1995 Aviation Safety Action Plan to the results of the December 1995 review. This is intended to show the disposition of the 1995 initiatives and how they translated into the 1996 initiatives.

Background

In December of 1994, the Secretary of Transportation, Federico Peña, invited senior U.S. aviation officials to meet for a safety conference in Washington, DC. More than 1,000 representatives from industry, labor, and government attended this meeting in January of 1995. The core activity was a set of six workshops, chaired by industry and labor. The six workshops included:

- Crew training;
- Air traffic control and weather issues;
- Safety data collection and use;
- Application of emerging technologies;
- Aircraft maintenance procedures and inspections; and
- Development of flight operating procedures.

These workshops generated over 500 safety issues and approaches to solving the issues. In turn, the workshop chairs and co-chairs identified the 45 most important issues and approaches, and presented them to Secretary Peña in the final plenary session of the meeting. Secretary Peña pledged that the FAA would respond to these 45 issues with an action plan within 30 days. The FAA, working with the workshop chairs, identified 173 initiatives to address these issues. Most of the initiatives were current FAA projects while 38 were new initiatives. On February 9, 1995, Secretary Peña announced the publication of the

Aviation Safety Initiative Review Steering Committee and Secretary Peña
(Courtesy of Federal Aviation Administration)

Aviation Safety Action Plan titled, *Zero Accidents: A Shared Responsibility.*

Oversight Group

Since the publication of this action plan, labor, industry, and the FAA have been working to accomplish the initiatives advanced in the plan. Because the FAA had the vast majority of the initiatives, labor and industry were interested in the progress that the FAA made in meeting its milestones. In order to better track the initiatives and to ensure that the highest priority safety initiatives receive the appropriate attention, industry and labor formed an oversight body (with ex officio FAA membership) to monitor the progress in improving aviation safety. This oversight group will provide an assessment of progress on safety initiatives to the FAA Administrator and the Secretary of Transportation. From this group an industry and labor lead steering committee (with FAA participating in an ex officio capacity) was formed to direct and focus the actions of the oversight group. The steering committee is composed of the following members:

Al Prest (Chair)	Air Transport Association (ATA)
John O'Brien	Air Line Pilots Association (ALPA)
Walt Coleman	Regional Airline Association (RAA)
Christopher A. Hart	FAA Assistant Administrator for System Safety (ex officio)

In September 1995, the steering committee, along with the chairs and co-chairs from the January 1995 conference, developed a mission statement for the oversight group. The statement reads:

The mission of the safety oversight group for enhancing aviation safety is to identify and describe aviation safety issues, continuously monitor the progress of aviation safety initiatives and report the status of aviation safety initiatives to the American public through the Secretary of Transportation and the FAA Administrator.

"We can never regulate our way to zero accidents. We can only get there through cooperation. And cooperation requires trust."

David Hinson, FAA Administrator

Purpose

The newly formed aviation safety oversight group decided that a meeting to review aviation safety initiatives was necessary prior to 1996. The goals of this meeting were to:

- Evaluate initiative accomplishments since January 1995;
- Re-examine/follow-up the Aviation Safety Action Plan by evaluating the themes, issues, approaches, and initiatives;
- Propose updates to safety issues;
- Determine safety priorities; and
- Develop an update to the Aviation Safety Action Plan.

December 6 and 7, 1995 were selected as the dates for this meeting. The plan for the December meeting was to reconvene the chairs and co-chairs for each of the six workshop areas from the January 1995 Aviation Safety conference, to instruct the chairs and co-chairs to bring together the necessary

"The key element for the framework is active partnerships, alliances that enhance commitment, and accountability for achieving zero accidents."

Federico Peña, Secretary of Transportation

aviation experts to assess and revise the issues and initiatives, and to prepare an update of the original Aviation Safety Action Plan.

Summary of the Meeting

The Aviation Safety Initiative Review meeting was opened on December 6, 1995, by Al Prest, chairman of the steering committee. More than 200 aviation, weather, and technology experts were present (see Appendix A for participant list). Secretary of Transportation, Federico Peña, set the tone for the meeting with a statement of his personal commitment to improving aviation safety. Secretary Peña lauded the assembled group and their organizations for their commitment and willingness to work in partnership to achieve safety gains. Finally, Secretary Peña challenged the assembled experts to explore every available avenue to improve air transportation safety.

> "We can learn from what's wrong in the past. But it's even more important that we learn what we can about troublesome trends before they become accidents."
>
> *Al Prest, Air Transport Association*

Steering committee members, John O'Brien and Christopher A. Hart, provided instructions to the meeting participants regarding the meeting goals, products, and methods. Each workshop reviewed the materials from the February 1995 Aviation Safety Action Plan to assess the accomplishments to date, make necessary revisions, and add new issues, approaches, or initiatives deemed critical.

The detailed results from each workshop (as presented in the afternoon plenary session December 7, 1995) are reported in the following chapters. Each chapter includes a table containing the issues, approaches, and initiatives considered most important for 1996 and beyond. A crosswalk of the 1995 issues, approaches, and initiatives to the 1996 issues, approaches, and initiatives can be found in Appendix B.

The meeting concluded with a plenary session in which the chairs of each workshop presented a high level summary of their results. Al Prest noted that this meeting was not taking place as a reaction to external events, but on the initiative of a professional air transportation community whose goal, every day, is safety. Following the workshop reports, the Chairman of the National Transportation Safety Board (NTSB), James Hall, and the FAA Administrator, David Hinson, provided remarks. Chairman Hall commended the group for their hard work and impressive results. He endorsed the theme of partnership and asked that the NTSB continue to be considered a partner in the improvement of aviation safety. Chairman Hall emphasized the importance of gathering and analyzing safety data. He noted that most major future improvements in aviation safety will be the result of the analysis of large amounts of complex safety data. Chairman Hall called again for the air transportation industry to equip the entire airline fleet with state-of-the-art flight data recorders.

> "This has been a most extraordinary example of what can be accomplished when industry, labor, and government work together. We all have our different points of view but when it comes to safety, we need to work out our differences for the good of all."
>
> *Jim Hall, Chairman, NTSB*

Administrator Hinson thanked the individuals and the organizations they represent for their efforts. He

expressed his belief that safety will only be improved through the combined efforts of the whole aviation community. Administrator Hinson restated his challenge from the January 1995 Safety Summit, reiterating that the only acceptable goal for the FAA and industry is zero accidents. He pointed to the tremendous progress achieved since 1960 in reducing the number of accidents and fatalities and highlighted the apparent plateau that has been reached in the past few years. His key point was to stress that in order to accomplish the zero accident goal, the industry must become proactive rather than reactive in its approach to safety. Administrator Hinson reiterated his statement that the aviation industry cannot be regulated to zero accidents; but by working collaboratively and sharing the responsibility, the zero accidents goal can be reached. He asked the chairs of the workshops to come to the FAA in early 1996 and present the results of their meeting to the top FAA executives.

Steering Committee Chair Al Prest, NTSB Chairman Jim Hall, and FAA Administrator David Hinson
(Courtesy of Federal Aviation Administration)

Steering committee member, Walter Coleman, provided an overall summary of the meeting, described the process for developing this report from the meeting results, and set a direction for the ongoing process of reviewing and revising the Aviation Safety Action Plan. Mr. Coleman's main point stressed that this type of working meeting is essential to identifying and solving aviation safety issues. The meeting was adjourned on December 7, 1995.

"Breaking below the current plateau of flight safety will take a ... concentration of effort. Achieving "zero accidents" calls for a new paradigm, a new approach."

David Hinson,
FAA Administrator

"The interests of aviation safety were well-served by the New Orleans meeting as it provided the opportunity to refine and reinvigorate our safety objectives."

Walt Coleman,
Regional Airlines Association

Ongoing Process

The joint industry, labor, and government steering committee proposes an ongoing process for the review and revision of Aviation Safety Initiatives. This process is necessary to maintain a high level of commitment, collaboration, and accountability from all parties involved in enhancing aviation safety.

The steering committee proposes the following as a general process for ongoing reviews:

- The steering committee will remain as a standing committee;
- The steering committee will meet when any member calls for a meeting;
- The steering committee will assess the usefulness of continuing the aviation safety initiative review process and will evaluate the need to poll or assemble the chairs and co-chairs or to convene technical meetings;
- The chairs and co-chairs will continue to be responsible for their workshop technical area (if a chair or co-chair is unable to serve, a replacement will be appointed by the steering committee);
- The chairs and co-chairs will stay in contact as a workshop, will initiate workshop level meetings, and will ask the steering committee to convene technical meetings as needed; and
- Technical experts and other representatives of the aviation community will be asked to participate on an "as needed" basis.

"The safety initiatives review meeting provides an excellent forum for industry, labor, and government to work pure safety issues. It is incumbent upon participants when identifying highest priority initiatives for 1996 to consider those which provide the best means to accomplish our zero accident goal."

John O'Brien,
Air Line Pilots Association

Next Steps

The steering committee has determined that the following actions are required to maintain the impetus to accomplish the aviation safety initiatives identified at the December review:

- The workshop chairs and co-chairs must identify and assign the individuals and organizations responsible for executing each safety initiative. This includes getting a commitment from these individuals to accept this responsibility.

- The workshop chairs and co-chairs must identify and assign the individuals and organizations that will be advocates for each safety initiative that does not have an individual or organizational commitment for execution.

- The workshop chairs and co-chairs must revalidate the safety initiative completion dates and outcome measures for accomplishment with those individuals and organizations that have accepted responsibility for executing the initiatives.

- The workshops chairs must report the status of the initiatives in their area to the steering committee for a mid-year review.

- The steering committee must review the status of the safety initiatives in mid 1996 to determine necessary action and direction.

- The steering committee will issue direction to the workshop chairs and co-chairs regarding these actions.

Workshop 1: Crew Training

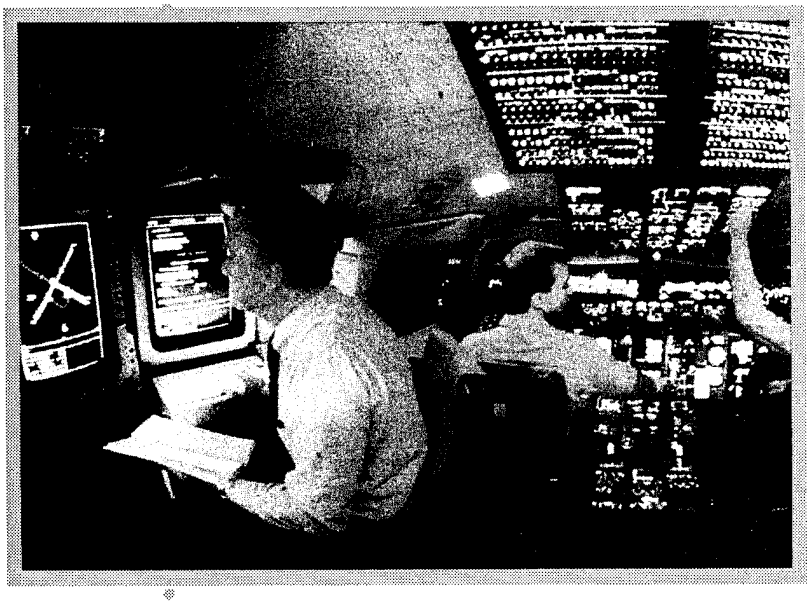
Chair:
Mr. Ted Mallory
(representing ATA)
Director, Flight Training Development
Northwest Airlines

Co-chairs:
Mr. Bill Edmunds
Human Performance Specialist
Engineering and Air Safety Staff
ALPA

Dr. Thomas Longridge
Manager, Advanced Qualification Program
(AQP) Branch
FAA, AFS-230

Mr. T. M. Shanahan
(representing RAA)
VP, Flight Operations
Atlantic Southeast Airlines, Inc.

Mr. Thomas Toula
Manager, Air Carrier Training Branch
FAA, AFS-210



Flight Simulator
(Courtesy of Northwest Airlines)

The Crew Training Workshop found its work to be a continuation of the work conducted at the original Safety Summit in January 1995. In the intervening time, several significant accomplishments and ideas for additional initiatives have surfaced. The goal and themes have not significantly changed.

Goal

Enable rapid adoption of modern training methods and technologies to improve air transportation safety.

Major Themes in Crew Training for 1996

The crew training workshop developed the following two principal themes:

- FAA and industry should accelerate the implementation of the Advanced Qualification Program (AQP) and make it more readily accessible to regional airlines.
  - Encourage greater use of simulation/flight training devices in aviation training programs at all air carriers.
- There is a pressing need for research and training programs related to human factors (crew resource management (CRM), stress, fatigue, etc.).
  - More data and trend information are needed to help identify and validate crew training.
  - Streamline the rulemaking process around training.

Crew Training Accomplishments Since the January 1995 Safety Summit

There have been significant accomplishments in the four key areas in the Crew Training chapter of the 1995 Aviation Safety Action Plan. These are:

- AQP successes include:
  - Acceleration within the aviation community;
  - Streamlining of the approval process;
  - Information exchange between organizations;
  - Model AQP expansion;
  - Increased staffing in the FAA; and
  - Increased regional airline familiarity with AQP.

- CRM successes include:
  - Completion of the revised Advisory Circular (AC);
  - Publishing of dispatcher CRM AC;
  - Finalization of rule expected on December 14, 1995; and
  - Participation of flight attendant, dispatch, maintenance, and customer service agents in the training process.

- Commuter training to FAR 121 standards is advanced with the publication of the final rule December 14, 1995.

- Greater use of simulation is encouraged through the publication of the NPRM allowing greater use of level C simulators (February 1995).

Significant Changes From 1995 Aviation Safety Action Plan

- Modifications to issues, approaches, or initiatives include:
  - Revised initiatives under new technology to highlight the need for training research on methods and media, and
  - Re-established timelines.

- Additions include:
  - Initiatives for the AQP rule,
  - Initiatives to streamline the rulemaking process,
  - Restrictions for the use of the Aviation Trust Fund,
  - Issues related to inspector training, and
  - Proposed revisions to FAR 121 Subparts N & O.

Crew Training Issues, Approaches, and Initiatives

The results of the Aviation Safety Initiative Review for Crew Training are presented in Table 1.

Highest Priority Crew Training Safety Initiatives for 1996

- Reduce administrative complexity of rulemaking and streamline the process;

- Expand the use of AQP;

- Place emphasis on controlled flight into terrain (CFIT) and situational awareness in training programs;

- Promote the exchange of training expertise/ initiatives with code-share partners and others;

- Charter a group to identify areas to improve FAA inspector training and standardization; and

- Introduce legislation in fiscal year 1996 to apply Aviation Trust Fund revenues to aviation safety initiatives.

Cross Cutting Issues

The principal cross-cutting issues for crew training relate to the collection, analysis, and dissemination of safety data. The 1995 Aviation Safety Action Plan contained three initiatives around the collection and use of safety data for training. For 1996, the Crew Training Workshop has asked the safety data group to include the collection and analysis of data for training changes in their initiatives with the understanding that the results of these analyses will be fed back into the CRM development process.

Table 1: Crew Training		
FAA/Industry Issues, Approaches, And Initiatives		**Completion Date**
Issue 1.1 Need To Accelerate AQP Implementation		
	Initiative 1.1.1 Continue implementation of AQP in seven major air carriers and three commuter air carriers with periodic status reports (i.e., transitioning multiple aircraft fleets to AQP in each such company).	FY 1996
	Initiative 1.1.2 Support the implementation of AQP in 50% of all major air carriers and 20 commuter air carriers with periodic status reports.	FY 1998
Approach 1.1.A Reduce Administrative Complexity Of AQP		
	Initiative 1.1.3 Develop draft AC 120-54 revision on AQP for approval process.	FY 1996
Approach 1.1.B Expand The Existing FAA Initiative To Develop And Distribute A "Model AQP"		
	Initiative 1.1.4 Develop model AQP for FAR Part 135 operators.	5/96
	Initiative 1.1.5 Develop refined model AQP for Part 121 and 135 operators.	FY 1997
Issue 1.2 Lack Of Regional Airline Familiarity With AQP		
Approach 1.2.A Conduct AQP Training Seminars At Appropriate Industry Conferences		
	Initiative 1.2.1 Continue AQP workshop training.	Ongoing
Issue 1.3 Timely Processing And Approval Of Air Carrier AQP Documents		
Issue 1.4 Emphasize FAR 142 Approval		

Table 1: Crew Training

FAA/Industry Issues, Approaches, And Initiatives	Completion Date
Approach 1.4.A Accelerate The Approval Process	
Initiative 1.4.1 Final Rule completion.	5/96
Issue 1.5 Allow Second In Command To Proceed From Level C Training To Initial Operating Experience Without Additional Aircraft Training	
Approach 1.5.A Loft Training Is A Proven Asset, Amend The Regulation To Eliminate The Aircraft Requirement	
Initiative 1.5.1 Develop simulator training criteria and incorporate them in FAR Part 121.	6/96
Initiative 1.5.2 Formalize AQP into a rule instead of a special rule.	12/96
Issue 1.6 Allow The FAR 121.434 Required FAA Observation To Be Accomplished By A Check Airman Or Airline Program Designees	3/96
Approach 1.6.A Allow Carriers To Use The APM Program To Perform This Function	
Initiative 1.6.1 The FAA must respond to the ATA recommendations.	6/96
Initiative 1.6.2 Develop criteria for the certification of designees enabling them to develop instrument approach and departure procedures in accordance with existing FAA criteria.	FY 1996
Issue 1.7 Aviation Problem And Adverse Trend Information Is Not Available From The FAA	
Approach 1.7.A Offer Easily Accessible Safety Information System Similar To Commercially Available On-Line Information Systems	
Initiative 1.7.1 Determine applicability of digital in-flight operational information and simulator training information to pilot training and qualification.	FY 1998

Table 1: Crew Training	
FAA/Industry Issues, Approaches, And Initiatives	**Completion Date**
Issue 1.8 Strengthen CRM To Include Flight Attendants And Dispatchers	
Initiative 1.8.1 Research the effectiveness and feasibility of conducting joint CRM training.	FY 1997
Issue 1.9 Sharing Of Training Expertise/Initiatives	
Initiative 1.9.1 Promote the exchange of training expertise/initiatives with code-share partners and others.	FY 1996
Issue 1.10 Identify And Develop Promising New Approaches To Training Evaluation	
Approach 1.10.A FAA Will Publish A Revised National Plan For Aviation Human Factors	
Initiative 1.10.1 Develop and validate a process to access, integrate, and analyze flight crew human factors data relevant to aviation safety. Initiate and implement the use of flight crew human factors data in the development of relevant training.	FY 1998
Approach 1.10.B In Cooperation With Users, Increase Applied Research On Training Strategies, Training Equipment, CRM, And Their Integration	
Initiative 1.10.2 Charter a user steering committee consisting of government, users, manufacturers, and academia to formulate an approach.	3/96
Initiative 1.10.3 Develop, execute, and refine a phased training and evaluation research plan.	9/96
Issue 1.11 Simulation Should Be Used More Widely	
Approach 1.11.A NPRM To Amend FAR 121 To Require Simulator Training	FY 1998

Table 1: Crew Training

FAA/Industry Issues, Approaches, And Initiatives		Completion Date
Issue 1.12		
Expand Utility Of Model AQP For All Airlines		
Initiative 1.12.1	Port to Microsoft family of ACCESS/EXCEL/WORD.	FY 1997
Initiative 1.12.2	Add utilities for accomplishing AQP performance data analysis and trending.	FY 1997
Initiative 1.12.3	Provide continuing resources to refine the model AQP based on airline user input.	FY 1997
Issue 1.13		
Lack Of Emphasis On CFIT And Situational Awareness		
Initiative 1.13.1	Place emphasis on CFIT and situational awareness in training programs.	FY 1996
Issue 1.14		
TCAS Response Training For Airmen		
Initiative 1.14.1	Provide appropriate TCAS response training in flight simulators or training devices.	FY 1997
Issue 1.15		
Safety Training Devices Used For Flight Attendant Training		
Initiative 1.15.1	Encourage the use of cabin mockup/devices for flight attendant safety training.	FY 1998
Issue 1.16		
Application Of Aviation Trust Fund Revenues To Safety Initiatives		
Initiative 1.16.1	Introduce legislation in FY 1996 to apply Aviation Trust Fund revenues to aviation safety initiatives.	FY 1996
Issue 1.17		
FAR 121 Subparts N&O		
Initiative 1.17.1	Rewrite FAR 121 subparts N&O.	FY 1998

Table 1: Crew Training		
FAA/Industry Issues, Approaches, And Initiatives		**Completion Date**
Issue 1.18 Inspector Training Needs To Be Improved And Standardized		
Initiative 1.18.1	Charter a group to identify areas to improve FAA inspector training and standardization.	FY 1996
Issue 1.19 Administrative Complexity Of Rulemaking Process		
Initiative 1.19.1	Reduce administrative complexity of rulemaking and streamline process. Those agencies involved with rulemaking process should be held accountable for meeting established timelines. Periodic status reports should be made available on-line (e.g., Internet).	FY 1997
Issue 1.20 Need For Electronic Transmission Of AQP Tools, Documents, And Data		
Initiative 1.20.1	Establish enhanced capability for electronic transmission of AQP tools, documents, and data regardless of user software.	FY 1997
Issue 1.21 Training Equipment For AQP Continuing Qualification		
Initiative 1.21.1	Revise level A&B simulator qualification standards to enable more affordable training equipment for AQP continuing qualification.	FY 1996
Issue 1.22 Lack Of Clarity In AC 120-53 Process		
Initiative 1.22.1	Clarify the AC 120-53 process.	FY 1996
Issue 1.23 AQP Is Not Used In Flight Attendant Training		
Initiative 1.23.1	Promote implementation of AQP for flight attendant training.	FY 1996

Workshop 2: Air Traffic Control & Weather

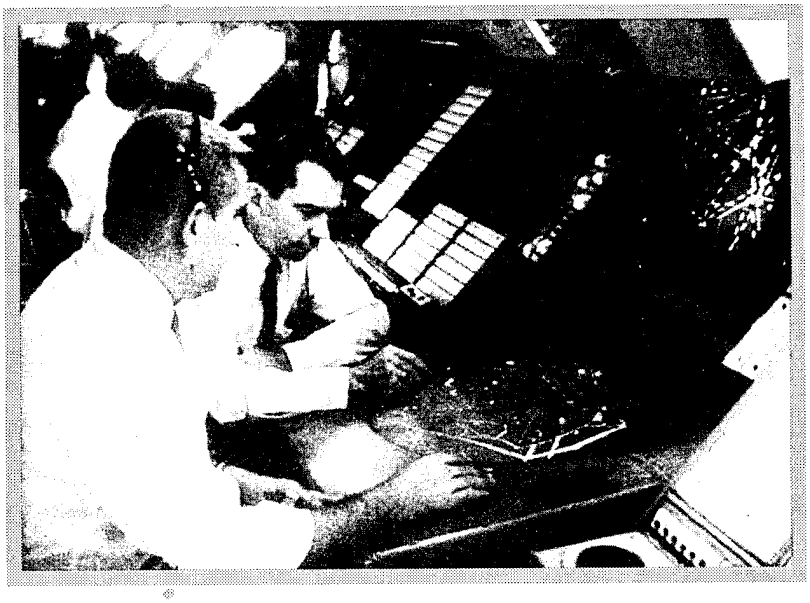
Chair:
Mr. Jack Ryan
VP, Air Traffic Management
ATA

ATC Co-chairs:
Ms. Nancy Kalinowski
(for Mr. L. Lane Speck)
Assistant Manager, Airspace Rules and
Aeronautical Information Division
FAA, ATP-201

Mr. Larry Nickle
(representing RAA)
Director of Systems Operations Control
American Eagle

Weather Co-chairs
Dr. John McCarthy
Special Assistant for Program Development, Office of the Director
National Center for Atmospheric Research

Mr. Bob Massey
Chairman, ALPA Aviation Weather Committee
ALPA



Air Traffic Controllers
(Courtesy of Air Transport Association)

Air Traffic Control

Goal

Identify goals and strategies to ensure that air traffic systems and procedures are coherently aligned to ensure increased safety as well as increased efficiencies and effectiveness in flight operations.

Major Workshop Themes

The ATC workshop developed three themes. These are:

- FAA and industry need to upgrade focus on surface operations safety to the level of flight operations safety;
- Need for more rapid deployment of technologies to upgrade surface operations safety; and
- Need for enhanced pilot/controller communications.

Air Traffic Control Accomplishments Since the January 1995 Safety Summit

There have been significant accomplishments on four initiatives prescribed in the 1995 Aviation Safety Action Plan. These include:

- Since January 1995, 18 ASDEs have been commissioned;
- The second edition of FAA's runway incursion plan was signed by the FAA Administrator in April 1995. The new plan will continue those projects not completed in the 1991 plan and add additional projects that the FAA and

industry believe are essential for safe and efficient airport surface operations;

- FAA formed a government/industry working group to develop controller and pilot standards for surface and low visibility operations. An advisory circular is out for comment; and

- As of January 1995, 40 airports were not in compliance with signage regulations. Enforcement action has been taken and the status report was provided February 2, 1996 on the 18 remaining non-compliant airports.

Significant Changes From 1995 Aviation Safety Action Plan

- Modifications to issues, approaches, or initiatives include:
  - FAA needs to reassess criteria to establish ASDEs locations and deploy at top 100 airports as soon as possible; and
  - Implement GPS-based ADS capability to include tags for all aircraft and vehicles that the FAA deems appropriate.
- Additions include three new issue areas. These are:
  - ASAP program in air traffic;
  - TCAS track files for wake turbulence avoidance; and
  - Recommend TCAS for large freighters.

- New initiatives include:
  - FAA will form an FAA/industry group to review taxiing into position and hold (TIPH) procedures and human factors; and
  - FAA to immediately establish the surface movement team as described in the Runway Incursion Action Plan.

Air Traffic Control Issues, Approaches, and Initiatives

The results of the Aviation Safety Initiative Review for Air Traffic Control are presented in Table 2.

Highest Priority Air Traffic Control Safety Initiatives for 1996

- FAA will form an FAA/industry group to review TIPH procedures and human factors.

- Runway incursion technology improvements to be made to:
  - Airport services;
  - Improved pavement marking;
  - Moving map;
  - ASDE-X, AMASS, GPS, ADS-B; and
  - Joint research.

- FAA to immediately establish the surface movement team as described in the Runway Incursion Action Plan.

- FAA Air Traffic should develop an internal quality assurance program modeled on American Airlines' highly successful Aviation Safety Awareness Program (ASAP) to help identify safety deficiencies in the system.

- Recommend TCAS for large freighters.

- Research and review of technology to eliminate stuck microphones/blocked frequencies.

- Use of non-standard phraseology by pilots and controllers.
  - FAA to develop pamphlet to explain commonly used phrases and clearances.

- FAA should develop uses of airborne sensor technology, such as TCAS Track Files, to provide pilots a tool for wake turbulence avoidance.

Clear Air Turbulence Map of the U.S., at Flight Altitude 350
(Courtesy of National Center for Atmospheric Research and the NOAA Forecast Systems Laboratory)

Cross Cutting Issues

There are several technology-oriented issues that will require coordination with other workshops. The equipping and implementation of TCAS on large freighters must be worked in conjunction with the Development of Flight Operating Procedures Workshop.

Also, the implementation of ASDE, AMASS, and GPS (for locations, schedules, and procedures) must be developed in conjunction with Applications of Emerging Technologies Workshop.

Goal

Identify goals and strategies to ensure that weather systems and procedures are coherently aligned to ensure increased safety, efficiencies, and effectiveness in flight operations.

Major Workshop Themes

The Weather subgroup identified the following five key themes to guide their work:

- FAA Leadership: The FAA should take ownership, responsibility, and accountability at an executive level for aviation weather issues. This includes:
  - Taking a lead agency role,
  - Developing an action plan engaging service providers and product users,
  - Establishing clear statement of requirements, and

- Tasking the National Weather Service (NWS) with specific aviation service requirements.

- Education: Establish elevated standards for weather knowledge for airmen (pilots, controllers, dispatchers), and other operational personnel. This includes:
  - Training airmen and other operational personnel in uses of new technology,
  - Promoting the use of new training technologies for training weather (computer based training (CBT), impact-oriented training), and
  - Upgrading practical testing standards for pilots, controllers, and dispatchers.

- Services: Improve weather observation, forecast, dissemination, and situational awareness. This includes:
  - Icing, turbulence, volcanic ash, surface observations, thunderstorms, ceiling/visibility, windshear, and de-icing,
  - Developing/deploying effective means of timely dissemination, and
  - Extensively using two- and three-dimensional color graphics in information and decision tools to ensure pilots, controllers, and dispatchers have common situational awareness.

- Technology: Strong emphasis on continuing development and application of weather technology.

- Plan: Integrated plan for aviation weather R&D across relevant agencies including FAA, NASA, NOAA, NSF, and DOD, in close partnership with industry and labor:
  - Commitment to stable, long-term funding, and
  - Annual review of progress.

Weather Accomplishments Since the January 1995 Safety Summit

There have been many significant accomplishments in aviation weather systems since January 1995. These include:

- Establishment of FAA ATR-400 as a first step;

- Drafting of FAA National Aviation Weather Users Forum Action Plan;

- Submission of FAA RE&D Advisory Committee Report on Aviation Weather;

- Publication of Aviation Weather Service's *A Call for Leadership and Action*, National Research Council;

- Flight trials of general aviation data link of traffic and weather information services;

- Progression of TDWR installations;

- Continuing demonstrations of Terminal Weather Information for Pilots (TWIP) for FY 96;

- Substantial progress of ASOS augmentation;

- Continuing demonstrations of Integrated Terminal Weather Service (ITWS) for FY 96; and

- De-icing products demonstrations at Denver and Chicago.

Significant Changes From 1995 Aviation Safety Action Plan

The weather issues, approaches, and initiatives for 1996 represent a complete reworking of the issues, approaches, and initiatives from the 1995 Aviation Safety Action Plan. Appendix B provides a crosswalk of the previous weather items to the 1996 Aviation Safety Plan.

Weather Issues, Approaches, and Initiatives

The results of the Aviation Safety Initiative Review for Weather are presented in Table 2.

Highest Priority Initiatives for 1996

- FAA to assume leadership role;

- Forge FAA action plan;

- FAA to task NWS for products;

- Develop requirements for weather products and services;

- Improve weather observations and forecasts;

- Improve dissemination of weather information

- Improve situational awareness;

- Focus on research and development; and

- Increase education for airmen and others.

Cross Cutting Issues

The weather workshop believes that there are potential cross-cutting issues with each of the other groups except Aircraft Maintenance. Examples include:

- Crew Training: Training on knowledge and application of weather information and use of decision aids.

- Application of Emerging Technologies: Development and implementation of weather systems.

- Safety Data Collection and Use: Collection and analysis the relationship between weather factors and other operation safety data.

- Development of Flight Operating Procedures: Procedures for flying in and around weather.

- In addition there must be greater integration of Air Traffic Control and Weather initiatives, for example: Development of air to ground weather information and communication systems and procedures.

Safety Initiative Follow-On

The Air Traffic Control and Weather Workshop recommended that the Steering Committee, workshop chairs, and co-chairs meet in June 1996 to review the status of initiatives and decide whether and when a plenary session is necessary.

Table 2: Air Traffic Control And Weather		
FAA/Industry Issues, Approaches, And Initiatives		**Completion Date**
Air Traffic Control		
Issue 2.1 Runway Incursion Technology Improvements		
Approach 2.1.A Accelerate Implementation Of Technology Designed To Prevent Runway Incursions		
Initiative 2.1.1	FAA should immediately establish the Surface Movement Team as described in the Runway Incursion Action Plan signed by all the Associate Administrators in April 1995 and expedite the commitments made in the Runway Incursion Action Plan.	4/1/96
Initiative 2.1.2	Request a status report on the 18 non-complying airports, and any current exemptions and reasons why.	2/2/96
Initiative 2.1.3	Encourage RTCA Special Committee 159 to develop and adopt standards for cockpit moving map displays to enhance situational awareness on the airport surface as soon as possible.	FY 1996
Approach 2.1.B Accelerate Implementation Of Technology Designed To Prevent Runway Incursions, For Example: ADS-B, ASDE-3, and AMASS		
Initiative 2.1.4	All funds from Inductive Loop Technology Demonstration should be redirected to support the ASDE-X radars.	FY 1997
Initiative 2.1.5	Thirty-three ASDEs will be implemented by 1997; the next seven will be implemented by 1999. FAA needs to reassess the criteria used to establish where ASDEs are going and get it into top 100 airports as soon as possible. Weather was too highly considered. The AMASS schedule will follow ASDE.	TBD
Initiative 2.1.6	Commission and install AMASS at all ASDE-3 sites as soon as possible.	TBD
Initiative 2.1.7	Implement ADS-B capability on the airport surface to include tags for all the aircraft and vehicles deemed appropriate by the FAA.	TBD

Table 2: Air Traffic Control And Weather

FAA/Industry Issues, Approaches, And Initiatives		Completion Date
Approach 2.1.C		
Accelerate Implementation Of Technology Designed To Prevent Runway Incursions, For Example: FAA Should Study The Use Of Synthetic And/Or Enhanced Vision Technology To Prevent Runway Incursions		
Initiative 2.1.8	FAA has advised non-support of this project. This working group requests that the FAA rebrief RAA, ATA, and ALPA on the status of this project to determine further disposition.	5/96
Initiative 2.1.9	Joint research initiatives should only be funded if they have a high impact on reduction of runway incursions.	3/96
Issue 2.2		
Training On Procedures For Surface Operations Are Generally Not As Detailed And Formalized As Those For Flight Operations		
Approach 2.2.A		
FAA/Users Should Develop Standard Procedures And Verbal Coordination For Surface Operations And Ensure That Training Reflects These Upgrades. General Aviation Interests Should Also Upgrade Pilot Procedures For Single-Pilot Operations.		
Initiative 2.2.1	FAA will form FAA/Industry group to further build on foundation established by August 1995 FAA/Industry review of TIPH procedures and human factors. This group will review current procedures, performance, and training issues and recommend any additional actions necessary.	TBD
Initiative 2.2.2	FAA will develop and refine standard taxi procedures and routes in coordination with ATPAC. This working group encourages the FAA to brief ATPAC in April 1996 and implement procedures as soon as possible.	4/96
Initiative 2.2.3	Approve surface movement guidance and control plans at all airports operating below 1,200-foot RVR. This working group requests a status report of airports complying with this initiative be provided by February 1996.	2/96
Initiative 2.2.4	The PTS for pilots will be upgraded so that all pilots can demonstrate practical knowledge of surface operations.	FY 1996

Table 2: Air Traffic Control And Weather	
FAA/Industry Issues, Approaches, And Initiatives	**Completion Date**
Issue 2.3 Use Of Non-Standard Phraseology By Pilots And Controllers	
Initiative 2.3.1 FAA will lead a project to develop a "user friendly" pamphlet to explain commonly used phrases and clearances. It will explain what actions are expected on the part of pilots and controllers and consider issues associated with foreign flag carrier pilots. FAA has advised that this pamphlet will be completed by July 1996.	7/96
Issue 2.4 Blockage Of ATC Communications Due To Stuck Microphones And Simultaneous Communication	FY 1996
Approach 2.4.A Research And Review Available Technology To Eliminate Blockage	
Initiative 2.4.1 This working group requests that the Steering Committee be provided a status report on blocking technologies in February 1996.	2/96
Issue 2.5 Use And Proficiency In Spoken English Foreign Flag Carrier Pilots And Foreign Controllers	
Initiative 2.5.1 This working group recommends the SAE G-10 Committee should continue its current effort to determine the most effective approach to addressing these issues.	TBD
Weather	
Issue 2.6 Respond To: Briefing On Recommendations Of National Aviation Weather Users Forum, December 1995 National Research Council Report - March 1994: – Published As "Weather For Those Who Fly" Aviation Weather Services. A Call For Federal Leadership And Action, 1995. Final Report Of The Aviation Weather Subcommittee, October 1995	

Table 2: Air Traffic Control And Weather

FAA/Industry Issues, Approaches, And Initiatives	Completion Date
Approach 2.6.A FAA Must Establish Statement Of Requirements For Weather Products And Services	
Initiative 2.6.1 FAA/Industry must develop a specific action plan in conjunction with service providers and product users which will speak specifically to products and the implementation/commissioning dates. DOD, NASA, NSF, and NWS should be mandated to participate in the development and publication.	FY 1996
Issue 2.7 FAA Should Officially Task The NWS With Aviation Weather Products In Response To FAA Needs	
Approach 2.7.A FAA And NWS Should Meet At Least Annually In Accordance With The 1977 FAA/NOAA Memorandum Of Agreement To Define NWS Response To FAA's Aviation Weather Needs	
Issue 2.8 FAA Must Vigorously Fulfill The Lead Agency Role In Aviation Weather Services And Related Research	Ongoing From FY 1996
Approach 2.8.A FAA Leadership, With Shared Partnership Responsibilities Accepted By NWS, DOD, NASA, And NSF Will Provide A Clear Vision Of Aviation Weather Requirements And A Strategy For The Provision Of Services And Supporting R&D. Formulation Of Such A Strategy Must Address The Potential Of The Private Sector As A Provider Of Products And Services.	
Initiative 2.8.1 FAA should provide the leadership, establish the priorities, and ensure the funding needed to improve weather services for all aviation weather users and to strengthen related research.	Ongoing From FY 1996
Approach 2.8.B FAA Should Designate A Senior Official At A Higher Level Than ATR-400 To Assume Overall Responsibility For Carrying Out The FAA's Role As Lead Agency	
Issue 2.9 Improve The Collection And Dissemination Of Timely Weather Information	
Initiative 2.9.1 Complete integration of TDWR and LLWAS (enhanced) at airports with both systems installed.	FY 1996

Table 2: Air Traffic Control And Weather		
FAA/Industry Issues, Approaches, And Initiatives		**Completion Date**
Initiative 2.9.2	Deploy data link capability which will disseminate alphanumeric weather products and en route ATC clearances, including weather, directly to the cockpit through high resolution Doppler radar.	FY 1998
Initiative 2.9.3	Provide high resolution Doppler radar products directly to the controllers' displays.	FY 1998
Approach 2.9.A		
Place Highest Priority On The Development And Deployment Of Effective Means For Timely Dissemination Of A Broad Suite Of Products In The Following Aviation Weather Service Areas: Convective Hazards, Ceiling And Visibility, Icing, Turbulence, Surface Observations, Microbursts And Windshear Observations, Volcanic Ash, Routine Weather, International Weather (PIREPS And Graphics), And De-icing. Pursue The Following Short-Term Initiatives:		
Initiative 2.9.4	Report RVR on SAO/METAR reports.	FY 1996
Initiative 2.9.5	Implement FAA COMS to tie in all ASOS into national network.	Ongoing From FY 1996
Initiative 2.9.6	Develop and deploy the ground infrastructure to support multiple government and private data links, including HF, VHF, SATCOM, and Mode S.	FY 1996
Initiative 2.9.7	Employ objective, indexed descriptions for icing, turbulence, and convective hazards.	FY 1996
Initiative 2.9.8	Employ user-friendly graphics generated by government and private vendors to the maximum extent possible.	FY 1996
Issue 2.10		
Observations And Forecasts Need To Be Improved		
Approach 2.10.A		
Address 10 Aviation Weather Services (See *Recommendations Of National Aviation Weather Users Forum*, December 1995)		
Issue 2.11		
Common Situational Awareness Of Hazardous And Operationally Significant Weather		
Initiative 2.11.1	Employ extensive use of two- and three-dimensional color graphics of weather for pilots, controllers, and dispatchers.	Ongoing From FY 1996

Table 2: Air Traffic Control And Weather		
FAA/Industry Issues, Approaches, And Initiatives		**Completion Date**
Initiative 2.11.2	Make available the ability to zoom from global, national, regional, and local framework to allow users to understand weather situations in any geographical domain relevant to user (e.g., a Chicago dispatcher sees a Dallas/Ft. Worth ITWS).	Ongoing From FY 1996
Initiative 2.11.3	Focus on operational decision aids to maximize safety and efficiency of flight system capacity needs.	Ongoing From FY 1996
Initiative 2.11.4	Focus on both hazardous weather and weather conditions that may not be hazardous, but which impact operations (e.g., microburst vs. high resolution winds aloft, observations, and forecasts).	Ongoing From FY 1996
Issue 2.12 Need Additional Airmen Education In Weather (ATC/Dispatch/Pilot) And Others (e.g., Ops. Personnel)		
Approach 2.12.A FAA Should Establish An Elevated Standard For Airman Knowledge Of Weather/Atmosphere And Develop Segmented Testing On Examinations		
Initiative 2.12.1	FAA will review written testing on weather, focusing on practical rather than theoretical weather knowledge.	FY 1996
Approach 2.12.B Train Airmen On The Uses Of New Weather Technologies (i.e., TDWR, LLWAS, TWIP, ITWS, NEXRAD, Etc.)		
Initiative 2.12.2	PTS for pilots, dispatchers, and controllers.	FY 1996
Approach 2.12.C Train Airmen On New Report Format(s)		
Initiative 2.12.3	FAA will coordinate with NWS to establish new METAR/METAF codes.	FY 1996
Approach 2.12.D FAA Should Develop New Weather Training Aids For Judgment (Similar To Windshear Training Of Airlines) To Include CBT And New Simulator Scenarios		

Table 2: Air Traffic Control And Weather	
FAA/Industry Issues, Approaches, And Initiatives	**Completion Date**
Approach 2.12.E FAA Should Develop Operationally Appropriate Weather Awareness Training For Other Aviation Services And Ground Personnel	
Issue 2.13 Delay In Deployment Of Improved Technologies	
Approach 2.13.A Expedite Deployment Of Demonstrated Technologies That Can Make A Near-Term Leap Forward In Aviation Weather Services And Safety (e.g., ASOS, TDWR, ITWS, RVR, Automated A/C Observations, Automated ATIS, And TWIP)	
Issue 2.14 Aviation Weather R&D Is Fragmented And Subject To Wide Swings In Funding And Agency Support	
Approach 2.14.A Under Leadership Of The FAA, Develop An Integrated Plan For Aviation Weather R&D. Plan To Include Short- And Long-Term Objectives, Prioritization, Time Lines, And Agency Commitment. (Include FAA, NWS, DOD, NASA, and NSF--in partnership with industry and labor--in the development of integrated plan.)	
Initiative 2.14.1 Annually review progress, additions, and modifications to plan.	Ongoing
Issue 2.15 Structural Icing	
Initiative 2.15.1 Complete field testing of observations and forecasting of meteorological icing conditions.	FY 1998
Issue 2.16 Standardization Is A Fundamental Ingredient For Safety Procedures	

Table 2: Air Traffic Control And Weather		
FAA/Industry Issues, Approaches, And Initiatives		**Completion Date**
Approach 2.16.A AWOS		
Initiative 2.16.1	Complete transition plan designed to phase out human weather observers at ASOS sites in a manner consistent with ASOS service standards currently being established jointly between industry users and the government. This initiative is with the full recognition that higher standards will be necessary for certain (large air carrier airport) sites	FY 1998

Workshop 3: Safety Data Collection and Use

Chair:
Mr. John O'Brien
Director, Engineering & Air Safety Department
ALPA

Co-chairs:
Capt. Michael Cronin
Legislative Affairs Chairman
Allied Pilots Association (APA)

Mr. Dave Harrington
Manager, Air Transportation Division
FAA, AFS-200

Mr. Christopher A. Hart
Assistant Administrator for System Safety
FAA, ASY-1

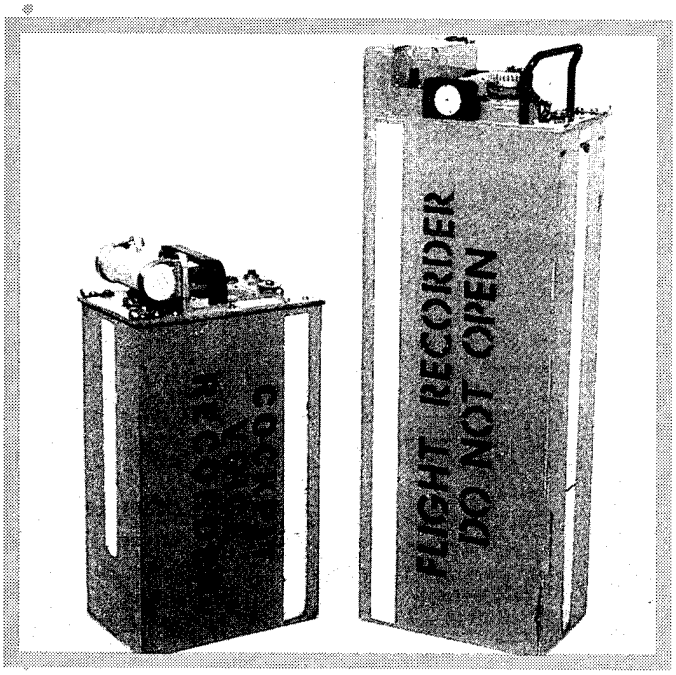
Mr. Ken Marshall
(representing RAA)
VP Flight Operations and Corporate Safety
ComAir, Inc

Capt. Edmond Soliday
(representing ATA)
VP, Safety and Security
United Airlines

The meeting of the Safety Data Collection and Use Workshop in January 1995 was extremely productive and this progress continued through the Initiative Review in New Orleans. While the direction of this group remained the same, refinements and insights led to several clear actions for 1996 and beyond.

Goal

Identify needed changes which will ensure all aviation safety data is available for immediate use in accident prevention.



Cockpit Voice and Flight Data Recorders--"Black Boxes"
(Courtesy of National Transportation Safety Board)

Major Themes in Safety Data Collection and Use

Three primary themes emerged from the Safety Data Collection and Use Workshop. These are:

- Both the government and industry need to improve their safety analysis capabilities;
- The availability of safety-related data must be increased for both FAA and industry; and
- Actions should be taken to encourage development and use of airline partnership joint safety programs that include the sharing of information from airline crews and maintenance personnel.

Safety Data Accomplishments Since the January 1995 Safety Summit

The Safety Data Workshop identified two significant accomplishments since January 1995. These are:

- A policy statement was issued regarding FOQA data by the FAA Administrator in February 1995; and
- Two US air carriers have implemented FOQA programs and others are in final stages of development.

Significant Changes From 1995 Aviation Safety Action Plan

The Safety Data workshop identified 14 significant modifications to issues, approaches, and initiatives in the 1995 Aviation Safety Action Plan. These include:

FOQA

- Coordinate of FOQA analysis and advisory circular initiatives through the ATA FOQA Steering Committee;
- Expand the ATA FOQA Steering Committee to include a broader interest base;
- Initiate the formation of an aviation safety community data sharing group to meet the first time on January 22, 1996. The long range envisions "The Hague of Safety" which includes all of the key players in a round table for information sharing;
- In order to fully realize the potential of new safety data, changes to existing laws are needed;
- The FAA will issue rulemaking to exempt FOQA program data from use in enforcement actions;

Partnership

- Airline safety partnership programs would encourage employees to provide safety information. Legislative support would make these programs more effective;
- FAA and the Aviation Safety Action Partnership Task Force will meet to resolve differences in concept in the operation of these programs;

ASRS

- Clarify NAPA recommendations from 1994 study and their implications;
- Clearly state in an advisory circular that ASRS reporter protections apply to all ASRS participants, including maintenance technicians, cabin crew, etc;

Accident Prevention through Data Collection/Analysis

- Clarification to include safety data from more sources;
- Clarification to include design, manufacture, operation, and maintenance data;

- Expansion to refer specifically to publication of concept paper to solicit international participation by those who can help with collecting, analyzing, and disseminating safety data;

- Clarification to determine how to use existing safety data more effectively; and

- Expansion to include specific reference to air traffic control system equipment.

Data Protection

- FAA to develop legislative initiative for protection of safety data;

There were three significant additions to the 1995 plan. These are:

- Evaluate the potential of using the ASRS as a consolidation point for data collected under ASAP programs;

- Meet December 1995 completion date for moving NASDAC into headquarters; and

- Reference the development of one or more prototypes to collect, analyze, and disseminate safety data.

Safety Data Issues, Approaches, and Initiatives

The results of the Aviation Safety Initiative Review for Safety Data Collection and Use are presented in Table 3.

Highest Priority Safety Data Initiatives for 1996

- Finalize rule for FOQA protection;

- Legislate protection of safety data;

- Initiate ATA FOQA task force to convene government/industry/labor safety data forum;

- Complete of partnership program advisory circular;

- Issue the ASRS advisory circular clearly defining participating parties; and

- Strengthen ASRS through continued implementation of NAPA recommendations.

Cross Cutting Issues

The Safety Data workshop believes that the collection and use of safety data applies to each of the other workshops' content areas. Each will benefit from a more thorough understanding of the factors that influence safety. Emerging technologies will certainly play a key role in the collection and usefulness of safety data.

Table 3: Safety Data Collection And Use

FAA/Industry Issues, Approaches, And Initiatives		Completion Date
Issue 3.1 Airline Safety Partnership Programs Would Encourage Airline Personnel To Provide Timely Safety Information (Priority attention should be given to Initiatives 3.1.1 and 3.1.2 to remove all deterrents to data collection, including the following conditions currently being proposed by the FAA in Amendment #20 to FAA Order 2150-3A: (1) administrative or legal enforcement action applied to sole source reports, and (2) exclusion of repeat occurrences.)		
Approach 3.1.A Establish Working Relationships Between Airline Employees, Management, And The FAA		
	Initiative 3.1.1 FAA shall involve the ASAP Industry Task Force AC working group in the development of language for ASAP Memorandums of Understanding and AC.	1/1/96
Approach 3.1.B FAA Should Provide Standardized Policy And Procedures For The Use Of Airline Safety Partnership Programs		
	Initiative 3.1.2 FAA will finalize Partnership for Safety Programs.	1/1/96
Issue 3.2 Facilitate Implementation Of FOQA Programs		
	Initiative 3.2.1 A contract will be awarded to initiate a demonstration project with industry participants.	5/95
	Initiative 3.2.2 As a follow-up to Initiative 3.2.1, UTRS will facilitate FAA contract with five airlines to conduct FOQA evaluation programs.	3/96
Approach 3.2.A Develop Proactive Methods To Collect Recorded Flight Data		
	Initiative 3.2.3 ATA Task Force to recommend FOQA AC guidance to FAA with participation of interested industry parties.	12/97
	Initiative 3.2.4 In coordination with ATA Task Force conduct research to identify and develop advanced analysis and technology strategies.	FY 1996 FY 1997 FY 1998

Table 3: Safety Data Collection And Use		
FAA/Industry Issues, Approaches, And Initiatives		**Completion Date**
Approach 3.2.B FAA/DOT Issue Immediate Policy Statement Followed By Rulemaking Exempting FOQA Program Data From Use In Enforcement Action		
Initiative 3.2.5	FOQA final rule issued by September 15, 1996.	9/15/96
Approach 3.2.C Industry/Government/Labor Task Force To Develop Means To Share Deidentified Data Within The Safety Community		
Initiative 3.2.6	ATA FOQA Task Force facilitate development of a neutral forum for exchange and analysis of safety data. First meeting scheduled for January 22, 1996.	Ongoing
Issue 3.3 Prevent Accidents Through Safety Data Collection And Analysis		
Approach 3.3.A Centralize Safety Data Make Safety Data More Available And Publicize Availability		
Initiative 3.3.1	Open the NASDAC facility in the FAA Headquarters Building.	1/96
Initiative 3.3.2	FAA OAS will develop a plan to make NASDAC data more available, especially by electronic means.	2/96
Approach 3.3.B Determine Existing Safety Data Systems		
Initiative 3.3.3	FAA OAS will establish FAA/Industry working group and survey and catalog existing and proposed methods and systems to collect, analyze, or disseminate aviation safety data regarding the design, manufacture, operation, and maintenance of aircraft. (Note: "Aviation Safety Data" includes, but is not limited to, all FAA safety data, accident/incident data, voluntary and mandatory aviation safety reports, and aviation activity data.)	5/96

Table 3: Safety Data Collection And Use

FAA/Industry Issues, Approaches, And Initiatives		Completion Date
Initiative 3.3.4	FAA OAS will establish FAA/Industry working group and determine how existing aviation safety data are used worldwide, how data could be improved, and how data could best be used to identify systemic problems regarding the design, manufacture, operation, and maintenance of aircraft.	8/96
Initiative 3.3.5	FAA OAS will establish FAA/Industry working group to evaluate the need and desirability of determining how existing safety data are used worldwide, how such data could be improved, and how such data could best be used to identify systemic problems regarding the design, manufacture, operation, and maintenance of air traffic control equipment.	8/96
Approach 3.3.C		
Develop Future Safety Data Systems		
Initiative 3.3.6	FAA OAS will publish a concept paper that solicits views and ideas regarding how best to collect, analyze, and disseminate aviation safety data to identify and respond to systemic problems with the design, manufacture, operation, and maintenance of aircraft.	3/96
Initiative 3.3.7	FAA OAS will establish FAA/International Industry working group and begin the development of a standardized classification system for aviation safety data.	5/96
Initiative 3.3.8	ATA FOQA Task Force should convene a meeting of the appropriate entities to develop functional specifications regarding how best to prevent accidents through safety data collection, analysis, and dissemination, and to develop one or more prototypes toward accomplishing that goal. This meeting should consider responses from the concept paper when available.	6/96
Initiative 3.3.9	FAA OAS will implement and evaluate one or more prototypes to prevent accidents through safety data collection, analysis, and dissemination.	12/96
Approach 3.3.D		
Trained Analysts To Utilize Data (Industry And FAA)		
(This is a far term approach. Several other approaches and initiatives must be completed before work can begin on this approach and the associated following initiatives.)		
Initiative 3.3.10	Initiate a process to use industry-collected data to identify systemic problems related to aircraft design and manufacture.	FY 1998

Table 3: Safety Data Collection And Use

FAA/Industry Issues, Approaches, And Initiatives		Completion Date
Initiative 3.3.11	Determine applicability of digital in-flight operational information and simulator training information to pilot training and qualification.	FY 1998
Initiative 3.3.12	Begin using industry-collected data to identify systemic problems in aircraft fleets, aviation personnel, and maintenance.	FY 1998
Issue 3.4 ASRS Needs Updating And Expanding Seen As An Immunity Tool Data Not Used Fully		
Approach 3.4.A Promote ASRS As An Accident Prevention Tool Encourage Reporting Expand To Include Maintenance Issues Encourage Wider Analysis And Utilization		
Initiative 3.4.1	– Protection of ASRS reporters should be extended to all parties eligible to use ASRS reporting form (e.g., pilots, mechanics, flight attendants, ramp personnel, etc.). FAA should confirm original criteria. Develop and publish AC.	1st Qtr 96
	– FAA Office of System Safety be responsible for evaluating means of increasing utilization of ASRS data by the FAA and others.	TBD
	– Increase full-form processing to 40%. STATUS: Elevated to 35% from 20%. FURTHER ACTION: Reach 40%.	6/96
	– Make program information and reporting forms more accessible. STATUS: Program information and reporting forms and publications on Internet. FURTHER ACTION: Publicize availability.	3/96
	– Electronic submission of reports. STATUS: Method identified - Internet; security concerns identified. FURTHER ACTION: ASRS to resolve security concerns and introduce electronic report submission.	6/97, 9/97
	– Outreach to flight attendant community. STATUS: Reporting form finalized. FURTHER ACTION: ASRS to publicize initiative.	3/96

Table 3: Safety Data Collection And Use		
FAA/Industry Issues, Approaches, And Initiatives		**Completion Date**
	– Modernization of database systems. STATUS: Alternative systems evaluated. FURTHER ACTION: ASRS to implement new generation software. (Concurrent with issuance distribution of new reporting forms.)	12/96
Initiative 3.4.2	ASAP Task Force evaluate the potential of using the ASRS as a consolidation point for data collected under ASAP programs.	1/97
Initiative 3.4.3	ASRS Advisory Subcommittee promote awareness of ASRS publications, capabilities, database search sets, and other products to aviation organizations (carriers, unions, FAA offices, etc.).	12/96
Issue 3.5 Protections Various Concerns Inhibit Reporting Of Data Punitive Measures Enforcement FOIA Removal Of Concerns Would Facilitate Retrieval Of Better Data		
Approach 3.5.A DOT/FAA Seek Legislative Protection From Disclosure By The Government That Applies To Partnership Programs, As Well As Any Other FAA Approved/Accepted Safety Data Collection Programs. Legislative Protection Is A Top Priority.		
Initiative 3.5.1	FAA to develop legislative initiative for protection of safety data.	4/96

Workshop 4: Application of Emerging Technologies

Chair:
Capt. Bill Cotton
(representing ATA)
Manager, Air Traffic and Flight Systems
United Airlines

Co-Chairs:
Mr. Walter Coleman
President
RAA

F/O Ted Demosthenes
Chairman, All Weather Flying Committee
ALPA

Mr. Steve Zaidman
Deputy Director, Communications, Navigation, and Surveillance Systems
FAA, AND-2

The Application of Emerging Technologies workshop has a difficult and complex task as new technologies with the potential to improve safety continue to emerge. Applying these technologies, predicting which are viable (technically and economically), and setting dates for implementation is a dynamic process. This workshop has the greatest number of initiatives and foresees continuous change in initiatives, dates, and priorities.

Goal

Identify applications and implementation strategies for emerging technologies that will improve safety.

Major Workshop Themes

- Design and apply emerging technologies with increased emphasis on human factors in all phases of the aviation system, including aircraft design, certification, training, operations, and maintenance;

Next Generation Radar (NEXRAD)
(Courtesy of Federal Aviation Administration)

- Improve approach and navigation capabilities in all weather conditions;
- Expand use of data link services for pre-departure clearance, ATIS, and oceanic controller/pilot communications;
- Improve safety of airport surface operations; and
- Develop more effective and environmentally friendly de-icing systems.

Emerging Technology Accomplishments Since the January 1995 Safety Summit

Five significant accomplishments were identified from those initiatives relating to emerging technologies at the January 1995 Safety Summit. These are:

- GPS Program Successes:
  - Wide Area Augmentation System,
  - CAT I/II Feasibility Demonstration, and
  - Primary Means Oceanic.

- FAA Human Factors Study Team Report (Pending Publication);

- National Plan for Civil Aviation Human Factors;

- NAS Successes:
  - Revised Runway Incursion Plan, and
  - Complete definition of airport surface traffic management functional requirements; and

- Icing Successes:
  - De-icing fluid holdover table revision.

Significant Changes From 1995 Aviation Safety Action Plan

The Application of Emerging Technology workshop identified four modifications to issues, approaches, or initiatives as significant. These are:

- Clarifying focus of human factors from doing research to applying research to actual applications;

- Expanding the use of people other than the FAA to create instrument approach procedures;

- Creating the capability to develop new GPS-aided instrument approach procedures at a rate of 1400 per year; and

- Making date adjustments on the installation and implementation of many systems.

Seven additions were identified as significant. These are:

- Propulsion Control Aircraft (PCA)
  - To prevent loss of aircraft with severe flight control problems;

- Remote sensing of adverse runway conditions
  - To prevent runway excursions;

- Technologies to detect clear air turbulence and wake vortices (such as LIDAR)
  - To prevent turbulence injuries and accidents;

- Wake Vortex Advisory System
  - To enable accurate prediction of the wake vortex hazard and use of appropriate procedures for avoidance;

- Update, implement, and distribute the results of the National Plan for Civil Aviation Human Factors
  - To reduce human error in design and operation of the aviation system;

- Improve airworthiness/certification process
  - To provide additional human performance/crew centered design criteria and training; and

- Utilize FAA Human Factors Study Team Report
  - To reduce technology-related human error.

Emerging Technology Issues, Approaches, and Initiatives

The results of the Aviation Safety Initiative Review for Application of Emerging Technologies are presented in Table 4.

Highest Priority Initiatives for 1996

- GPS deployment and implementation;
- Human factors considerations into new systems;
- Additions to the NAS infrastructure; and
- Applications of new icing/de-icing methods.

Cross Cutting Issues

Emerging technologies have the potential to enhance all other content areas of aviation safety. The emerging technologies group will continue to interface with the other groups to ensure that the greatest safety benefit can be achieved by leveraging technology.

Implementation Strategies

The Emerging Technologies workshop recommends a call for volunteers to champion individual issues and to take responsibility for tracking them through to completion under the auspices of the safety initiative review group. Volunteers and other responsible government contact individuals will take ownership for individual issues.

Table 4: Application Of Emerging Technologies

FAA/Industry Issues, Approaches, And Initiatives		Completion Date
Issue 4.1		
Human Factors And Situation Awareness		
Initiative 4.1.1	Begin to conduct the research identified in the National Plan.	FY 1996
Initiative 4.1.2	Develop suitable distribution plan of the National Plan research results.	FY 1996
Initiative 4.1.3	Update the National Plan for Civil Aviation Human Factors to reflect the findings of the FAA Human Factors Study Team.	FY 1996
Initiative 4.1.4	Define human factors requirements in advanced maintenance concepts.	FY 1996
Initiative 4.1.5	FAA will initiate an effort to develop a Maintenance Resource Management System for maintenance personnel using the CRM model.	FY 1996
Initiative 4.1.6	Expand the national database for aviation human factors to include all research descriptions, results, and publications relevant to aviation.	FY 1996
Initiative 4.1.7	Identify and implement methods to be utilized for the sharing and coordination of information about human performance and human-system interaction among appropriate government, industry, and academic groups.	FY 1996
Approach 4.1.A		
Assure Human Centered Design		
Initiative 4.1.8	Develop and provide principles, guidelines, standards, and evaluation criteria for human-centered design.	FY 1996
Initiative 4.1.9	Complete full-scale prototypes CTAS/TMA and begin operational implementation accounting for human performance considerations.	FY 1996
Initiative 4.1.10	Conduct full-scale operational demonstration of ASTA surveillance and automation functionality on airport surface operations at selected airports to permit analysis of human factor elements therein.	FY 1996

Table 4: Application Of Emerging Technologies

FAA/Industry Issues, Approaches, And Initiatives		Completion Date
Initiative 4.1.11	Complete definition of Airport Surface Automation specifications considering human-centered design principles, guidelines, and criteria in cooperation with airport operators and other ATC system users.	FY 1997
Initiative 4.1.12	Provide initial gate-to-gate ATC automation services based on advanced automation, ASTA, DGPS, and human factors considerations fully integrated into Airspace Automation Operations.	FY 1998
Initiative 4.1.13	Commission non consolidated TRACON automation functions, fully considering human factor elements.	FY 1998
Initiative 4.1.14	Develop advanced CHI prototypes for en route R-side and D-side.	FY 1998
Approach 4.1.B Improve Takeoff And Landing Performance Monitoring		
Initiative 4.1.15	The FAA will evaluate research by NASA and others on the ATOPS to determine safety benefits.	FY 1996
Approach 4.1.C Improve Airport Surface Operations		
Initiative 4.1.16	A simple, low-tech and low-cost solution, such as paint marking, can be deployed. A new specification to improve pavement markings by using beads in paint will be issued by FAA.	FY 1996
Initiative 4.1.17	Define surface systems architecture.	FY 1996
Initiative 4.1.18	Develop operational concept and requirements for the 21st century airport.	FY 1996
Initiative 4.1.19	Implement data link for GPS-based ADS capability on the airport surface.	FY 1998
Approach 4.1.D Reduce Wake Vortex Vulnerability		
Initiative 4.1.20	Revise recommended standards for Wake Vortex separation.	FY 1996

Table 4: Application Of Emerging Technologies

FAA/Industry Issues, Approaches, And Initiatives		Completion Date
Initiative 4.1.21	Explore technologies, such as LIDAR, which can detect clear air turbulence (including wake vortices and mountain wave turbulence) on the ground and in-flight. If practical and effective, certify such systems for use on aircraft and deploy at airports which are particularly susceptible to clear air turbulence.	FY 1996
Approach 4.1.E Reduce CFIT Exposure		
Initiative 4.1.22	Air Carriers install equipment in accordance with the FAA regulations for GPWS. *(Explore the possibility of mandating existing systems in all carriers by the end of FY 1996.)*	FY 1996
Initiative 4.1.23	The FAA will certify GPWS incorporating look ahead technology to replace existing (altimeter based) GPWS.	FY 1996
Approach 4.1.F Improve Aircraft Certification Process		
Initiative 4.1.24	Provide Human Performance/Crew Centered Design Criteria and Training for Airworthiness/Certification Personnel	FY 1996
Approach 4.1G Make Timely Utilization Of Transport Airplane Directorate Study		
Initiative 4.1.25	Endorse, circulate, and implement the Report and Recommendations of the FAA's Human Factors Study Team sponsored by the Transport Airplane Directorate.	FY 1996
Issue 4.2 NAS/Air Traffic Systems/Airports		
Approach 4.2.A Enhance ATC		
Initiative 4.2.1	Expand the data link delivery of pre-departure clearances to 27 additional airports.	FY 1996
Initiative 4.2.2	Establish two-way satellite-based data link communications capability in oceanic airspace.	FY 1996

Table 4: Application Of Emerging Technologies		
FAA/Industry Issues, Approaches, And Initiatives		**Completion Date**
Initiative 4.2.3	Establish two-way satellite-based voice-link communications capability in oceanic airspace.	FY 1997
Initiative 4.2.4	Provide ATIS via data link at 60 airports.	FY 1996
Initiative 4.2.5	Begin operational use of Oceanic ATC procedures based upon GPS and two-way data link operations.	FY 1996
Approach 4.2.B Prevent Runway Incursions		
Initiative 4.2.6	Define surface systems architecture.	FY 1996
Initiative 4.2.7	Implement data link for GPS-based ADS capability on the airport surface.	FY 1998
Initiative 4.2.8	Issue RFP for ASDE-X radars.	FY 1997
Initiative 4.2.9	Implement GPS-based ADS on the airport surface.	FY 1998
Approach 4.2.C Expand TCAS Utilization		
Approach 4.2.D Implement Non-Verbal Communications		
Initiative 4.2.10	Achieve agreement with user community on implementation of two-way data link.	FY 1996
Initiative 4.2.11	Implement ODL in Oakland and Anchorage (FY 1997) ARTCCs.	FY 1996
Initiative 4.2.12	Complete definition of Data Link System to support DGPS and other CNS/ATM operations.	FY 1996
Initiative 4.2.13	Establish two-way data link communications capability throughout domestic en route and terminal airspace.	FY 1998
Issue 4.3 Navigation		

Table 4: Application Of Emerging Technologies

FAA/Industry Issues, Approaches, And Initiatives		Completion Date
Approach 4.3.A		
Improve Non-Precision Navigation Operations		
LORAN - By Geographic/Customer Need		
Use FMS LNAV/VNAV		
Initiative 4.3.1	130 LORAN-C approaches have been developed.	FY 1996
Initiative 4.3.2	FAA will issue enhanced guidance for field approvals. (Note: ATA Task Force is working on expansion of FMS arrival and departure procedures.)	FY 1996
Approach 4.3.B		
Implement GPS Capabilities ASAP		
Initiative 4.3.3	Initiate MOPS for GPS as a sole means of navigation in domestic airspace and begin use of GPS in this role in both domestic and oceanic areas.	FY 1996
Initiative 4.3.4	Create the capability to develop new GPS instrument approach procedures at a rate of 1400 per year.	FY 1996
Initiative 4.3.5	Develop and implement terminal instrument procedures criteria, procedures development standards, and flight inspection policy and standards for DGPS CAT II/III.	FY 1997
Initiative 4.3.6	Demonstrate/validate risk reduction benefits of weather and traffic products acquired by local surveillance systems delivered to aircraft, air traffic control facilities, air carriers, and any combination of them.	FY 1996
Initiative 4.3.7	Implement GPS-based ADS on the airport surface.	FY 1998
Approach 4.3.C		
Support 'Autonomous Aircraft' Development		
Initiative 4.3.8	Complete definition of Data Link System to support DGPS and other CNS/ATM operations.	FY 1996
Initiative 4.3.9	Expand operational use of Oceanic ATC procedures based upon GPS and two-way link operations.	FY 1997

Table 4: Application Of Emerging Technologies

FAA/Industry Issues, Approaches, And Initiatives		Completion Date
Initiative 4.3.10	Develop and implement terminal instrument procedures criteria, procedures development standards, and flight inspection policy and standards for DGPS CAT II/III.	FY 1996
Initiative 4.3.11	Establish reduced oceanic separation standards based on CNS/ATM.	FY 1997
Initiative 4.3.12	Implement GPS-based ADS surveillance capabilities into en route and terminal automation systems.	FY 1998
Initiative 4.3.13	Approve GPS-based CAT I approach as a primary precision landing aid in the United States.	FY 1998
Issue 4.4 Structural Icing		
Initiative 4.4.1	Support airport technology research and development to develop environmentally acceptable alternatives for de-icing and anti-icing agents.	FY 1997
Approach 4.4.A Build Central De-Icing Facilities - Multiple Aircraft, Runway End Develop New De-Icing Fluids Greater Holdover, Lower Cost, Earth Friendly		
Initiative 4.4.2	Test innovative ice prevention and removal for airport surfaces and issue regulatory AC, if satisfactory.	FY 1997
Initiative 4.4.3	Evaluate existing technology for remote sensing and real time reporting of adverse runway conditions.	TBD
Approach 4.4.B Install Ice Detection And Warning Systems		
Initiative 4.4.4	Evaluate optical-based and laser aircraft surface ice detection systems.	FY 1996
Approach 4.4.C Install Ice Rejection Coatings		
Initiative 4.4.5	Begin research on ice shedding materials and coatings. (Research to be initiated in FY 1995, follow-up to move into FY 1997.)	FY 1997

Table 4: Application Of Emerging Technologies	
FAA/Industry Issues, Approaches, And Initiatives	**Completion Date**
Approach 4.4.D Evaluate Anti-Ice/De-Icing Systems	
Initiative 4.4.6 Project under current development to evaluate certification rules for flight in icing conditions. FAA will publish project plan and milestones.	FY 1996
Issue 4.5 Obtain More Precise And Timely Maintenance Data	
Approach 4.5.A Strain Gauge Stress Points For Detection Of Pending Failures	
Approach 4.5.B Data Link Certain Parameters For Failure Prediction	
Approach 4.5.C Expand Use Of Ultra-Violet Techniques For Crack And Corrosion Detection	
Initiative 4.5.1 Corrosion detection device will be developed and evaluated.	FY 1998
Approach 4.5.D Develop Automated Techniques For Crack/Fatigue Detection	
Approach 4.5.E Make Wider Use Of Electronic Maintenance Reporting And Recording	
Initiative 4.5.2 A second ARAC recommendation is being developed: – Maintenance recordkeeping NPRM.	FY 1996
Issue 4.6 Improve The FAA Process	
Approach 4.6.A Examine FAA Organizational Effectiveness	

Table 4: Application Of Emerging Technologies		
FAA/Industry Issues, Approaches, And Initiatives		**Completion Date**
Approach 4.6.B Improve FAA Standard Setting, Development, And Implementation Process		
Initiative 4.6.1	Streamline and re-engineer efforts that support rapid implementation of new technologies.	Ongoing
Initiative 4.6.2	Assure a thorough benefit cost analysis is accomplished before requiring expenditures to resolve safety problems through the regulatory process. Accumulating safety costs should be considered. Include in analysis other options for the expenditures of these safety funds which may result in more effective use of available funds.	TBD
Issue 4.7 Funding/Incentives		
Initiative 4.7.1	Establish Administration policy for funding and incentives for new technologies.	FY 1996
Issue 4.8 Turbulence Detection		
Initiative 4.8.1	Explore technologies, such as LIDAR, which can detect clear air turbulence (including wake vortices and mountain wave turbulence) on the ground and in-flight. If practical and effective, certify such systems for use on aircraft and deploy at airports which are particularly susceptible to clear air turbulence.	FY 1996

Workshop 5: Aircraft Maintenance Procedures and Inspections

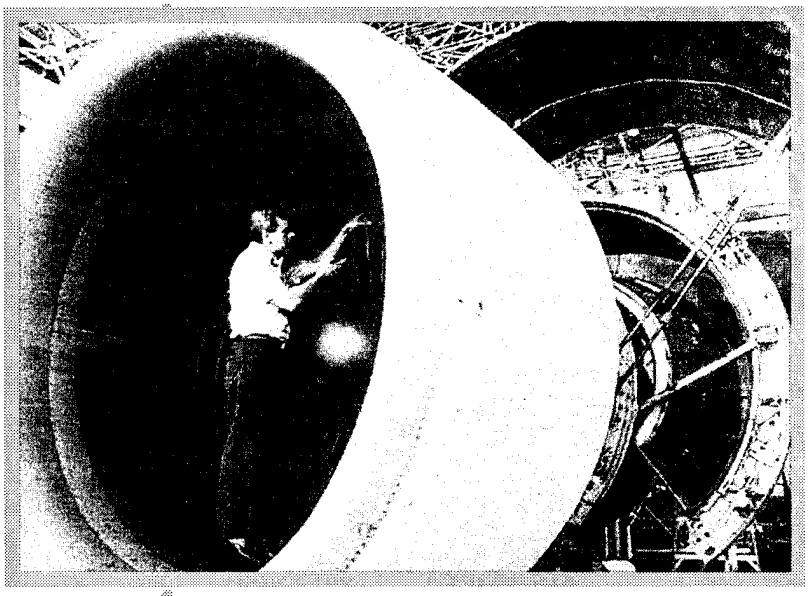
Chair:
Mr. Lawrence Brett
(representing ATA)
Director, FAA/ATA Liaison & Quality Assurance
Trans World Airlines, Inc.

Co-chairs:
Mr. Terry Kleiser
Flight Safety Coordinator
International Association of Machinists (IAM)

Mr. Frederick Leonelli
Manager, Aircraft Maintenance Division
FAA, AFS-300

Mr. Ralph Martin
(representing RAA)
VP, Maintenance
ComAir, Inc.

Capt. David Smith
Central Air Safety Chairman
ALPA



Engine Maintenance
(Courtesy of Air Transport Association)

The Aircraft Maintenance Procedures and Inspections Workshop was a continuation of the successful workshop conducted in January 1995.

Goal

Identify more effective procedures and processes that can be implemented to eliminate maintenance related discrepancies.

Major Workshop Themes

- The qualification standards and training for aircraft maintenance personnel should receive the same focus and attention from industry and government as the standards and training for aircraft crew members;
- Maintenance process reengineering is required to improve error detection and prevention through the incorporation of CRM and human factors principles, and the removal of impediments to sharing and disclosing maintenance data; and
- Industry and government need to place emphasis and resources beyond the current minimum regulatory requirements on airline internal audit programs and the oversight of parts suppliers and vendors.

Aircraft Maintenance Accomplishments Since the January 1995 Safety Summit

There were significant accomplishments identified in the following four areas of aircraft maintenance:

- Maintenance Training
  - Initiated an ARAC task to expand the requirements of FAR 121.375 to improve maintenance and preventative maintenance programs;

- Maintenance Human Factors
  - Established industry and FAA steering committees to implement a human factors program for maintenance.
  - Updated and published a guide to human factors and maintenance on CD-ROM and distributed to industry;

- Approved Parts
  - Established a common system for part documentation, updated FAA inspector handbook guides, and issued advisory circulars; and

- Internal Audits
  - Issued advisory circulars for FAR 145 repair stations and airlines for implementation of internal evaluation programs.

Significant Changes From 1995 Aviation Safety Action Plan

- Maintenance training
  - FAA establishing partnership training for local FAA inspectors and airline maintenance personnel;

- Human factors
  - Recommended release of air transportation partnership for safety programs, AC120.XX; and
  - Addressed maintenance error reporting programs in relation to unintentional errors and Freedom of Information Act (FOIA).

Aircraft Maintenance Issues, Approaches, and Initiatives

The results of the Aviation Safety Initiative Review for Aircraft Maintenance Procedures and Inspections are presented in Table 5.

Highest Priority Initiatives for 1996

- Expedite release of AC 120.XX, air transportation partnership for safety programs, and encourage development of other guidance materials to ensure consistent application throughout the FAA workforce;

- FAA to give some type of assurance that the reporter would not be subject to punitive action if the disclosure is about an unintentional error;

- Define human factors requirements in advanced maintenance concepts;

- Building on the completed 1995 MRM initiative using the CRM model as a guide, FAA will expand its effort in developing a MRM system for maintenance personnel which ensures open communication within the FAA and industry maintenance entities; and

- FAA will issue a Notice of Proposed Rulemaking (NPRM) revision to FAR 145 which requires internal quality control or audit programs in repair stations.

Cross Cutting Issues

The Aircraft Maintenance workshop identified the primary cross cutting issue as the collection and use of maintenance safety data. These issues will be coordinated with the Safety Data workshop.

Table 5: Aircraft Maintenance Procedures And Inspections

FAA/Industry Issues, Approaches, And Initiatives		Completion Date
Issue 5.1		
Maintenance And Recurrent Maintenance Training (FARs)		
Approach 5.1.A		
The FAA Should Establish Partnership Training Of Local FAA Inspectors With Maintenance Personnel At Their Respective Airlines		
Issue 5.2		
Maintenance Human Factors		
Approach 5.2.A		
FAA Flight Standards Should Devote Additional Research Effort Toward Human Factors For Maintenance, Focused On Error Detection And Prevention		
Initiative 5.2.1	Industry and FAA Steering Committees will work together to define human factors requirements in advanced maintenance concepts and establish a national database for aviation human factors in coordination with the Human Factors Guide developed in FY 1995.	2nd Qtr FY 1997
Initiative 5.2.2	FAA will initiate an ARAC task to review and develop appropriate advisory and rulemaking materials.	1st Qtr FY 1997
Approach 5.2.B		
Maintenance Error Reporting Program To A Central Database To Upper Management		
Initiative 5.2.3	FAA will develop a prototype maintenance error analysis tool. Note: Similar programs being developed by industry.	FY 1996
Initiative 5.2.4	FAA will ensure that the reporter would not be subject to punitive action if the disclosure is about an unintentional error.	FY 1996
Initiative 5.2.5	The FAA will exempt the maintenance error reporting program from the provisions of the FOIA.	FY 1996

Table 5: Aircraft Maintenance Procedures And Inspections	
FAA/Industry Issues, Approaches, And Initiatives	**Completion Date**
Initiative 5.2.6 Expedite release of AC 120.XX, Air Transportation Partnership for Safety Programs, and encourage development of other guidance materials to ensure consistent application throughout the FAA workforce.	FY 1996
Initiative 5.2.7 Building on the completed 1995 MRM initiative using the CRM model as a guide, FAA will expand its effort in developing an MRM System for maintenance personnel which ensures open communication within the FAA and industry maintenance entities.	FY 1996
Issue 5.3 Internal Audits Need More Emphasis	
Approach 5.3.A Tie Together Quality Systems And Internal Procedures	
Initiative 5.3.1 FAA will issue a NPRM revision to FAR 145 which requires internal quality control or audit programs in repair stations.	FY 1996
Approach 5.3.B Oversight Of Regional And Commuter Code-Share Partners	
Initiative 5.3.2 FAA will develop new AC to provide guidance for industry on appropriate emphasis and follow-through (should be focused on relationship between Part 121 and commuters/regionals).	FY 1996
Issue 5.4 Maintenance Delays In DOT On-Time Reporting System	
Approach 5.4.A DOT Should Remove Maintenance From Reporting System Intimidates Maintenance Personnel Encourages Potentially Unsafe Practices Risk Of Abuse Outweighs Benefit Of Information Information Already Required For Submission To Local FAA	
Initiative 5.4.1 Administration policy determination necessary.	FY 1996

Table 5: Aircraft Maintenance Procedures And Inspections	
FAA/Industry Issues, Approaches, And Initiatives	**Completion Date**
Issue 5.5 Increase The Usefulness Of Flight Data Recorders	
Approach 5.5.A Create Systems To Ensure Protection Of DFDR Data For FOQA	FY 1996

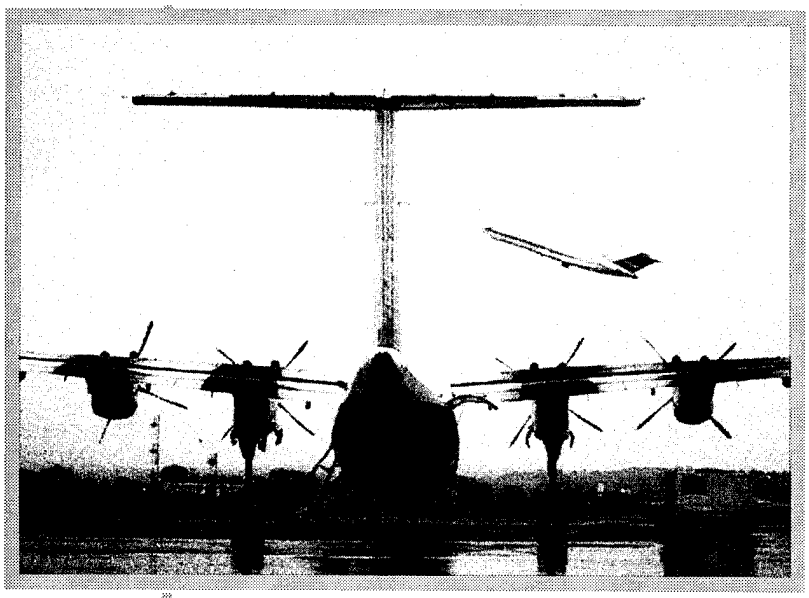
Workshop 6: Development of Flight Operating Procedures

Chair:
Capt. Bob Buley
(representing ATA)
Asst. to Vice Presidents of Operations
Northwest Airlines

Co-chairs:
Capt. David J. Haase
Executive Central Air Safety Chairman
ALPA

Mr. Thomas Imrich
National Resource Specialist for Transport Aircraft
FAA, AFS-200

Mr. Robert Brayton
(representing RAA)
VP, Flight Operations
Continental Express, Inc.



Flight Operations
(Courtesy of Regional Airline Association)

The Development of Flight Operating Procedures Workshop made major changes in the material developed in January 1995, including the new goal statement below. There were several new issues identified for which initiatives must be developed during 1996.

Goal

Define and implement enhancements to operational procedures to achieve "zero accidents:"

- Across all Environments,
- Terminal (Departure and Approach),
- Enroute, and
- Surface (Touchdown to Liftoff).

Major Workshop Themes

The following four major themes were identified in the Development of Flight Operating Procedures Workshop:

- Implementation of terminal area procedures that utilize FMS, GPS, and other technologies to help eliminate:
  - CFIT in terminal area operations,
  - Traffic conflicts, and
  - Ground accidents/incidents;
- Standardization is a fundamental ingredient for safety procedures;
- Safety considerations need to be paramount in procedures development; and
- Safety of aircraft operations on the aircraft movement area must be enhanced.

Flight Operations Accomplishments Since the January 1995 Safety Summit

The workshop identified the following eight significant accomplishments since the last Safety Summit:

- An ILS/MLS/GPS Policy was sent to ICAO;
- The NPRM on commuter air carriers was issued;
- The final commuter rule was issued on December 14, 1995;
- FAA issued a voluntary disclosure policy letter;
- ATA/RAA encouraged members to establish safety departments;
- General aviation flight trials of data link based traffic and weather were conducted;
- Air traffic development and refinement of standard taxi procedures and routes with ATPAC; and
- FAA issuance of revised runway incursion plan.

Significant Changes From 1995 Aviation Safety Action Plan

The flight operations issues, approaches, and initiatives for 1996 represent a complete reworking of the issues, approaches, and initiatives from the 1995 Aviation Safety Action Plan.

Development of Flight Operating Procedures Issues, Approaches, and Initiatives

The results of the Aviation Safety Initiative Review for Development of Flight Operating Procedures are presented in Table 6.

Highest Priority Initiatives for 1996

- Create industry forum for development/refinement of operation procedures;
- Develop three dimensional approach procedures for AC 120-29;
- Develop and approve a process for certification of designees authorized to design and approve approach procedures;
- Establish fleet qualifications to enable utilization of vertical guidance;
- Correct airport surface markings;
- Airport surface charting (survey and presentation);
- Create policy for use of auto brake RTO mode; and
- Define ICAO standard for surface friction reporting.

Table 6: Development Of Flight Operating Procedures		
FAA/Industry Issues, Approaches, And Initiatives		**Completion Date**
Issue 6.1 Accelerate The Rate At Which GPS Procedures Are Designed, Approved, And Implemented		
Approach 6.1.A Implement Terminal Area Procedures That Utilize FMS, GPS, And Other Technologies To Help Eliminate: Controlled Flight Into Terrain In Terminal Area Operations Traffic Conflicts Ground Accidents/Incidents		
Initiative 6.1.1	Maximum effort and attention must be provided by FAA management to create synergy between flight procedures and air traffic control to implement and maximize the benefits of flight management systems and FMS/GPS systems.	12/96
Approach 6.1.B Elimination Of Non-Precision Approaches To Reduce Controlled Flight Into Terrain In Terminal Area Operations		
Initiative 6.1.2	Issue expanded guidance for the installation of GPS receivers.	TBD
Initiative 6.1.3	Revise and complete TSO-C129, AC 120, 29A, AC 120, 28D, and AC 120-CNS.	12/96
Initiative 6.1.4	Create synergy between flight procedures and ATC to maximize benefits of FMS and GPS.	12/96
Initiative 6.1.5	Air Traffic, in consultation with primary users, accomplished development of FMS procedures in 1994 and 1995. Additional sites are planned for 1996 (e.g., accelerate development of FAA Order 7100.11).	FY 1996

Table 6: Development Of Flight Operating Procedures

FAA/Industry Issues, Approaches, And Initiatives		Completion Date
Initiative 6.1.6	FAA will conclude agreement with the users on the major policy decisions that must be made and establish initial policies in as many areas as possible, including: – The integration of ATC automation efforts; – The proper balance between ATC at the scene and traffic flow management; – The most efficient information flow and communication interfaces; and – The future utilization of the GNSS and the roles it is expected to play.	TBD
Approach 6.1.C Provide Sensor Independent Vertical Guidance To The Runway End On All Approaches With Various Decision Altitudes Predicated On Sensor Accuracy		
Initiative 6.1.7	Develop new GPS instrument approach procedures at a rate of 500 per year.	FY 1996
Initiative 6.1.8	To reduce the risk of CFIT during instrument approach operations, the FAA should refocus its procedures development program to expedite developing procedures utilizing vertical guidance to runway ends at airports served by operations conducted under FAR Parts 121/135.	Draft AC 12/96
Initiative 6.1.9	Approve GPS-based CAT I operations as a primary means in the United States.	FY 1998
Initiative 6.1.10	Recognizing the limited resources, and the multitude of unique airports served by scheduled air carriers, the FAA must develop criteria for the certification of designees which enables them to develop and recommend instrument approach and departure procedures in accordance with existing FAA criteria and developing RNP criteria.	12/96
Initiative 6.1.11	Recognizing the significant inherent capability of modern aircraft with integrated cockpits and the inability of existing FAA instrument approach capability to allow stabilized vertical paths to the runway, every effort must be taken to continue the development of RNP procedure development criteria.	6/96

Table 6: Development Of Flight Operating Procedures

FAA/Industry Issues, Approaches, And Initiatives		Completion Date
Approach 6.1.D		
Expediently Disseminate Information About GPS Approval Processes		
Initiative 6.1.12	Issue expanded guidance for the installation of GPS receivers.	FY 1995
Initiative 6.1.13	Immediately establish interim guidance for utilizing the navigation capability of FMS equipped aircraft to accomplish approaches being developed under 6.1.5.	12/96
Initiative 6.1.14	Establish final guidance for incorporating existing FMS equipped fleets of aircraft into the RNP environment.	6/96
Approach 6.1.E		
Provide More CAT 1 2, 3 Approaches To More Runway Ends		
Initiative 6.1.15	Conduct demonstration testing for CAT II/III precision approaches and landings.	2/95
Initiative 6.1.16	Determine feasibility of GPS for CAT II and CAT III operations. – Address integrity, availability, data link media, and other issues necessary for operational implementation. – Accelerate criteria development to support MMR and other GNSS applications for Cat II/III in ACs 120-29A/28D.	FY 1996
Initiative 6.1.17	Develop and implement terminal instrument procedures criteria, procedures development standards, and flight inspection policy and standards for DGPS CAT II/III.	FY 1996
Approach 6.1.F		
Traffic Conflicts		
Improve Airborne Collision Avoidance Systems		
Initiative 6.1.18	Implement GPS-based ADS surveillance capabilities into en route and terminal automation systems.	FY 1998
Approach 6.1.G		
Ground Accidents/Incidents		
Eliminate Runway Incursions		
Initiative 6.1.19	Implement GPS-based ADS on the airport surface.	FY 1998

Table 6: Development Of Flight Operating Procedures

FAA/Industry Issues, Approaches, And Initiatives	Completion Date
Issue 6.2 Standardization Is A Fundamental Ingredient For Safety Procedures	
Approach 6.2.A Procedures That Affect Safety Should Be Standard Among All Carriers	
Initiative 6.2.1 The industry should establish a forum to address how to best share the operating procedures and techniques that currently exist, including the enhancement of safety and human factors. This forum is to be completed by end of fiscal year 1996. Topics such as, but not limited to the following, should be considered: – Special Event Training (loss of control) – Mode Awareness/Confusion – De-Icing and Weather Issues (turbulence) – Fatigue Issues – TCAS/Air Carrier Operations Human Factors Task Force – Safety/Checkairman – Air Traffic Procedures/Aircraft (i.e., slam dunk) – Altitude Awareness Issues, Autoflight Human Factors Task Force	FY 1996
Approach 6.2.B Review Process And Requirements For Designated Special Airport Qualification	
Initiative 6.2.2 FAA/Industry will review process and requirements for Designated Special Qualification Airports. To ensure a standard level of safety, special qualification issues for obstacle rich mountain airports need to be identified and incorporated into existing AC 121.445 or other appropriate guidance material. Specific issues to be addressed include engine-out performance, navigation system failure, and validation flights. (To be completed by end of fiscal 1996.)	FY 1996
Approach 6.2.C Emphasize Utilization Rather Than Underlying Technology In New Equipment Training	
Initiative 6.2.3 Recommend the Transport Directorate Human Factors Study Team focus on the changes in automated flight decks to identify potential issues related to aviation safety.	Ongoing

Table 6: Development Of Flight Operating Procedures		
FAA/Industry Issues, Approaches, And Initiatives		**Completion Date**
Initiative 6.2.4	Continue the human factors efforts to identify potential safety issues as cockpit automation evolves along the lines initiated by the Transport Directorate Human Factors Study Team.	Ongoing
Initiative 6.2.5	Recommend the Transport Directorate Human Factors study group focus on the increased need for CRM as flightdecks become more automated.	Ongoing
Approach 6.2.D Standardize Charting And Display Symbologies		
Initiative 6.2.6	Charting committee is actively engaged in standardizing symbology.	Ongoing
Approach 6.2.E Fatigue/Fatigue Counter Measures		
Initiative 6.2.7	NASA should define and expeditiously complete the on-going research and communicate findings on Circadian rhythms with regard to fatigue and human performance. Should be completed by end of March 1996.	3/96
Initiative 6.2.8	Recommend the Transport Human Factors keep focused on the increased need for CRM as flight decks become more automated.	Ongoing
Issue 6.3 Safety Considerations Need To Be Paramount In Procedures Development		
Approach 6.3.A Trust Fund Should Be Used For Aviation System Improvements And Safety And Should Be Controlled By A Trust Fund Commission		
Initiative 6.3.1	Industry and Labor continue to strongly object to diverting or withholding Trust Fund Monies from Aviation System Improvement. While we understand the Administration has the final policy determination, we strongly suggest a cooperative input effort before a final decision is made.	Ongoing

Table 6: Development Of Flight Operating Procedures		
FAA/Industry Issues, Approaches, And Initiatives		**Completion Date**
Approach 6.3.B		
Establish Flight Safety Departments Within All Commercial Carriers		
Initiative 6.3.2	Develop regulatory criteria that establishes an effective independent safety department. Develop criteria for effective implementation and operation of such departments including definitions of authority and responsibility to promote a safety culture.	12/96
Initiative 6.3.3	Develop criteria for effective implementation and operation of such departments including definitions of authority and responsibility, which promote a safety culture.	12/96
Issue 6.4		
Airport Surface Operations Need The Same Degree Of Care And Scrutiny As Inflight Operations To Enhance The Safety Of Aircraft Operations The Aircraft Movement Area		
Approach 6.4.A		
Exploit The Advantages Of CNS/ATM Technologies In Support Of The Safety Of Operations On The Ground		
Approach 6.4.B		
Improve Ground Communication Technologies And Procedures		
Initiative 6.4.1	Encourage development and use of data link for improved communications.	6/96
Initiative 6.4.2	Expand data link delivery of pre-departure clearances to 27 additional airports.	2/96
Initiative 6.4.3	Establish data link system architecture and system implementation plan.	TBD
Initiative 6.4.4	Expand use of standard taxi procedures to the top thirty airports.	FY 1996
Approach 6.4.C		
Improve Ground Navigation Technologies, Planning, Standards, Signage, And Procedures		
Initiative 6.4.5	Establish standards for cockpit moving map displays to enhance situational awareness on the airport surface.	FY 1996

Table 6: Development Of Flight Operating Procedures

FAA/Industry Issues, Approaches, And Initiatives		Completion Date
Initiative 6.4.6	Establish standards and procedures for enhanced navigation for all weather operations on the airport surface.	12/96
Initiative 6.4.7	Complete installation of new airport signs on all airports certified under FAR Part 139.	FY 1996
Initiative 6.4.8	Improve the legibility of airport surface markings under all conditions.	9/96
Initiative 6.4.9	The FAA should develop a plan to complete the above initiative at key airports in FY 96.	FY 1996
Initiative 6.4.10	Improve airport charting in terms of the survey and the presentation. [Ref: RTCA SC 181]	12/96
Initiative 6.4.11	Develop safe and orderly procedures for runway intersections use by commuter and other aircraft with share field capability regarding operational turbulence from turbo jet aircraft. This procedure to be documented in the respective carrier's operations specifications (performance data required) and accepted by air traffic management as normal, safe procedure.	12/96
Initiative 6.4.12	Review landing clearance procedures to eliminate collisions on the runway.	6/96
Initiative 6.4.13	Encourage consistent provision and use of aircraft type specific information with respect to varying runway braking conditions.	6/96
Initiative 6.4.14	Develop standard policy for use of auto brake RTO mode in all normal operations.	6/96
Initiative 6.4.15	FAA/Industry group develop ICAO acceptable standard runway friction reporting system.	9/96
Initiative 6.4.16	An ARAC working group will submit plans for runway pavement maintenance criteria. (Industry has developed criteria for measuring and reporting runway friction.)	TBD
Issue 6.5 TCAS Traffic Information Is Underutilized		

Table 6: Development Of Flight Operating Procedures

FAA/Industry Issues, Approaches, And Initiatives		Completion Date
Approach 6.5.A		
Maximize The Safety Benefit Of The TCAS Which Requires The Presence Of An Operating Mode C Transponder On Intruder Aircraft In Order To Function		
Initiative 6.5.1	Initiate a demonstration of participatory separation utilizing TCAS/ACAS for in trail descent and wake vortex separation. (Participatory separation occurs when the pilots of two aircraft request the procedure to maintain separation of their aircraft using only their own onboard systems.)	FY 1996
Approach 6.5.B		
Expand Requirement For Mode C Fitment		
Initiative 6.5.2	FAA will develop a tasking for ARAC to ascertain if current regulatory requirements are adequate, and initiate a regulatory process requiring operating Mode C equipment for all aircraft in airspace in the vicinity of TCAS II equipped aircraft.	FY 1996
Approach 6.5.C		
Recommend All PART 121 Aircraft To Install And Operate Collision Avoidance Equipment		
Initiative 6.5.3	FAA will develop a tasking for ARAC to ascertain if current regulatory requirements are adequate. FAA/Industry adopt policy that collision avoidance equipment should be installed on all PART 121 aircraft.	FY 1996
Approach 6.5.D		
Require All Transport Category Aircraft Operating Under An Air Carrier Certificate To Install And Operate TCAS II		
Initiative 6.5.4	FAA will develop a tasking for ARAC to ascertain if current regulatory requirements are adequate.	FY 1996
Approach 6.6.E		
Evaluate Other Shared Separation Responsibilities		
Initiative 6.5.5	Complete strategic definition of relation between Traffic Management planning responsibilities, human factor elements, and "real-time" ATC responsibilities. Make sure these agreements are fully reflected in ongoing programs and plans for ground and cockpit automation, to include the findings of the RTCA Free-Flight Report.	TBD

Glossary

AAS	Advanced Automation System
AC	Advisory Circular
AC	Air Circular
ACAS	Airborne Collision Avoidance System
ADS	Automated Dependent Surveillance
AFS	Flight Standard Service
AIP	Airport Improvement Program
ALPA	Air Line Pilots Association
AMASS	Airport Movement Area Safety System
APM	Aircrew Program Manager
AQP	Advanced Qualification Program
ARAC	Aviation Rules Advisory Committee
ARPA	Advanced Research Projects Agency
ARTCC	Air Route Traffic Control Center
ASA	Atlantic South East Airlines, Inc.
ASAP	Aviation Safety Action Plan
ASDE	Airport Surface Detection Equipment
ASOS	Automated Surface Observing Service
ASRS	Aviation Safety Reporting System
ASTA	Airport Surface Traffic Automation
ATA	Air Transport Association
ATC	Air Traffic Control
ATCSCC	Air Traffic Control System Control Center
ATIS	Automated Terminal Information Service
ATM	Air Traffic Management
ATOPS	Automated Take-Off Performance System
ATPAC	Air Traffic Procedures Advisory Committee
ATR	Air Traffic Plans & Requirements
AWOS	Automated Weather Observation System
CAT	Category
CBT	Computer-Based Training
CFIT	Controlled Flight Into Terrain
CHI	Computer Human Interface
CNS	Communication, Navigation, and Surveillance
CRM	Crew Resource Management
CTAS	Center-TRACON Automation System
DFDR	Digital Flight Data Recorder
DGPS	Differential Global Positioning System
DLP	Data Link Processor
DOD	Department of Defense
DOT	Department of Transportation
ETMS	Enhanced Traffic Management System
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
FMS	Flight Management System
FOIA	Freedom of Information Act
FOQA	Flight Operations Quality Assurance
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
GPWS	Ground Proximity Warning System
HF	Human Factors
IAM	International Association of Machinists
ICAO	International Civil Aviation Organization
ILS	Instrument Landing System
ISD	Instructional System Design
ITWS	Integrated Terminal Weather Service
LASHO	Land Short and Hold Operations
LIDAR	Light Intensity Detecting and Ranging
LLWAS	Low Level Windshear Alert Systems
LNAV	Longitudinal Navigation
LORAN	Long Range Navigation
METAF	Meteorological Terminal Aerodome Forecast
METAR	Meteorological Terminal Aviation Routine
MLS	Microwave Landing System
MMR	Multi Mode Receiver

MOPS	Minimum Operational Performance Standards
MRM	Maintenance Resource Management System
NAPA	National Association of Public Administration
NAS	National Airspace System
NASA	National Aeronautics and Space Administration
NASDAC	National Aviation Safety Data Analysis Center
NEXRAD	Next Generation Radar
NOAA	National Oceanic and Atmospheric Administration
NPRM	Notice of Proposed Rule Making
NSF	National Science Foundation
NTSB	National Transportation Safety Board
OAS	Office of Aviation Safety
ODL	Oceanic Data Link
PCA	Propulsion Control Aircraft
PDC	Pre-Departure Clearance
PIREPS	Pilot Weather Reports
PTS	Practical Test Standards
R&D	Research and Development
RAA	Regional Airline Association
RFP	Request For Proposal
RNP	Required Navigation Performance
RTCA	Radio Technical Corporation of America
RTO	Rejected Take-Off
RVR	Runway Visual Range
SAE	Society of Automotive Engineers
SAO	Surface Aviation Observation
SATCOM	Satellite Communications
SDR	Service Difficulty Report
SID	Standard Industry Departure
STAR	Standard Terminal Arrival Route
TCAS	Traffic Alert and Collision Avoidance System
TDWR	Terminal Doppler Weather Radar
TIPH	Taxi Into Position and Hold
TMA	Traffic Management Advisory
TRACON	Terminal Radar Approach Control
TWIP	Terminal Weather Information for Pilots
VHF	Very High Frequency
VNAV	Vertical Navigation

Appendix A

List of Participants

Aviation Safety Initiative Review
New Orleans, Louisiana
December 6 & 7, 1995

APPENDIX A
PARTICIPANT LIST

First Name	Last Name	Company	Represent	Workshop
Jonn	Allen	FAA	FAA	1
Steve	Catalano			1
Eleana	Edens	FAA	FAA	1
Bill	Edmunds	Air Line Pilots Association	ALPA	1
Ed	Fell	FAA	FAA	1
Larry	Ganse	Northwest Airlines		1
Alan	Goldstein	Independent Pilots Association		1
Tom	Johnson	USAir, Inc.		1
Tom	Keating	United Parcel Service		1
Norm	Komich	USS	ALPA	1
Meg	Leith	Association of Flight Attendants		1
Roland	Liddell	Trans World Airlines	ALPA	1
Thomas	Longridge	FAA	FAA	1
Ted	Mallory	Northwest Airlines	ATA	1
Joe	Marott	Southwest Airlines		1
Tom	Peters	Delta Air Lines		1
Hop	Potter	FAA	FAA	1
Paul	Ray	FAA	FAA	1
Larry	Rockliff	Airbus Training		1
Lee	Schumacher	American Airlines		1
Doug	Schwartz	Flight Safety International		1
Tilden	Shanahan	Atlantic Southeast Airlines, Inc.		1
Diane	Shapiro	McDonnell Douglas		1
Karen	Sieffert	Northwest Airlines		1
William	Thomas	Air Transport Association	ATA	1
Tom	Toula	FAA	FAA	1
Bill	Traub	United Airlines, Inc.		1
Wendy	Wade	Trans World Airlines		1
William	Cranor	Airline Dispatchers Federation		2
Nancy	Kalinowski	FAA	FAA	2
Bill	Phaneuf	Air Line Pilots Association	ALPA	2
Jack	Ryan	Air Transport Association	ATA	2
Robert	Baker	American Airlines		2A
Willie	Card	FAA	FAA	2A
Mike	Connor	NATCA	NATCA	2A
Pat	Gallagher	Allied Pilots Association	APA	2A
Terry	Hanson	Delta Air Lines	ALPA	2A
Joe	Hart	FAA	FAA	2A
James	Holweger	United Airlines, Inc.		2A
Larry	Nickle	American Eagle		2A
Ross	Sagun	United Airlines, Inc.	ALPA	2A
Lane	Speck	FAA	FAA	2A
C.	Askue	U.S. Air Force		2W

APPENDIX A
PARTICIPANT LIST

First Name	Last Name	Company	Represent	Workshop
Tom	Fahey	Northwest Airlines		2W
Dale	Foster	Southwest Airlines		2W
Rick	Heuwinkel	FAA	FAA	2W
Albert	Kaehn, Jr.	National Research Council		2W
Carl	Knable	United Airlines, Inc.		2W
Bob	Massey	Delta Air Lines	ALPA	2W
John	McCarthy	National Center for Atmospheric Research	NCAR	2W
Timothy	Miner	Allied Pilots Association	APA	2W
William	Sears	Air Transport Association	ATA	2W
Robert	Serafin	National Center for Atmospheric Research	NCAR	2W
Paul	Smith	National Business Aircraft Association, Inc.	NBAA	2W
Juan	Barges	DGAC		3
Don	Bateman	Allied Signal Aerospace		3
Ben	Berman	National Transportation Safety Board		3
Mads	Brandt	Teledyne Controls		3
Bill	Brashear	United Airlines, Inc.	ALPA	3
Andy	Cebula	NATA		3
Sherry	Chappell	National Aeronautics and Space Administration		3
Peter	Clapp	Flight Data Company		3
Michael	Cronin	American Airlines	APA	3
Jerry	Davis	Airbus Industrie AI/E-fs		3
George	Dial	Boeing Commercial Airplane Group		3
Dutch	Drescher	IAM Air Transport Dist. 143		3
David	Driscoll	USAir, Inc.		3
John	Enders	Enders Associates		3
Robert	Francis	National Transportation Safety Board		3
Gary	Gamborini	ARINC		3
Scott	Griffith	American Airlines Flight Academy		3
Keith	Hagy	Air Line Pilots Association	ALPA	3
Dave	Harrington	FAA	FAA	3
Christopher	Hart	FAA	FAA	3
Coby	Johnson	USAir, Inc.		3
Tim	Logan	Northwest Airlines		3
Callum	MacGregor	British Airways PLC		3
Ken	Marshall	ComAir, Inc.	RAA	3
Stuart	Matthews	Flight Safety Foundation, Inc.		3
Al	Mattox	ARINC		3
Don	McClure	Air Line Pilots Association	ALPA	3
Tommy	McFall	American Airlines		3
Ron	McGarry	FAA	FAA	3
John	O'Brien	Air Line Pilots Association	ALPA	3
Brian	Poole	FAA	FAA	3
Craig	Richesin	Douglas Aircraft Company		3

APPENDIX A
PARTICIPANT LIST

First Name	Last Name	Company	Represent	Workshop
Loren	Rosenthal	Battelle Columbus Laboratories		3
Dave	Roy	Embry-Riddle Aeronautical University		3
Scott	Shankland	Allied Pilots Association	APA	3
Ronald	Simmons	FAA	FAA	3
George	Snyder	USAir, Inc.		3
Edmond	Soliday	United Airlines, Inc.		3
Tom	Stuckey	FAA	FAA	3
Ron	Swanda	General Aviation Manufacturers Association		3
Chris	Thomson	Penny & Giles		3
Dan	Tillotson	ARINC		3
Frank	Whetten	Embry-Riddle Aeronautical University		3
Ed	White	Allied Pilots Association	APA	3
Tom	Christopher	Kitty Hawk Aircargo, Inc.		4
Gary	Church	Aviation Management Associates, Inc.		4
Peter	Clements	Gulfstream International Airlines, Inc.		4
Walter	Coleman	Regional Airline Association	RAA	4
Bill	Cotton	United Airlines, Inc.	ATA	4
Ted	Demosthenes	Delta Air Lines	ALPA	4
Paul	Gallaher	Northwest Airlines	ALPA	4
Don	Griffin	AirTran Airways, Inc.		4
Mike	Hayes	Delta Air Lines	ALPA	4
Donald	Hunt	Embry-Riddle Aeronautical University		4
Hugh	Knighton	Southwest Airlines		4
Joe	Kohler	Northwest Airlines	ALPA	4
Michael	Nadon	Airline Dispatchers Federation		4
Lewis	Richardson	Alaska Airlines	ALPA	4
Grant	Sullivan	United Airlines, Inc.	ALPA	4
Guice	Tinsley	FAA	FAA	4
Raymond	Vecci	Alaska Airlines		4
Theodore	Weise	Federal Express Corporation		4
Jon	Wilder	Westates Air Lines, Inc.		4
James	Williams	FAA	FAA	4
Thomas	Wittman	Air Wisconsin Airlines Corporation		4
Jack	Wojciech	FAA	FAA	4
Thomas	Yoder	International Association of Machinists	IAM	4
Steve	Zaidman	FAA	FAA	4
Robert	Aaron	Northwest Airlines	ALPA	5
Ric	Anderson	Federal Express Corporation		5
Ed	Bearden	Northwest Airlines	ALPA	5
Lawrence	Brett	Trans World Airlines	ATA	5
Andy	Buttafuoco	I.A.M. & A.W.	IAM	5
Sam	Cochran	Trans States Airlines, Inc.	RAA	5
Jim	Conley	International Association of Machinists	IAM	5

APPENDIX A
PARTICIPANT LIST

First Name	Last Name	Company	Represent	Workshop
John	Cox	USAir, Inc.	ALPA	5
Phil	Devlin	Continental Express Airlines, Inc.		5
LuVern	Dokter	FAA	FAA	5
Steve	Erickson	Air Transport Association	ATA	5
William	Farmery	Piedmont Airlines, Inc.		5
Bob	Hall, Jr.	Air Line Pilots Association, Int'l	ALPA	5
John	Hultz	Trans States Airlines, Inc.	RAA	5
Casey	Jones	Northwest Airlines		5
Joe	Kania	USAir, Inc.		5
Terry	Kleiser	International Association of Machinists	IAM	5
Christine	Leonard	Intl Society of Aviation Maintenance Professionals		5
Fred	Leonelli	FAA	FAA	5
Ralph	Martin	ComAir, Inc.		5
Mark	Miller	Mesaba Airlines, Inc.		5
Dal	Mortenson	United Airlines, Inc.		5
James	Muroski	Chautauqua Airlines, Inc.		5
Steven	Ormsbee	Piedmont Airlines, Inc.	ALPA	5
David	Smith	Alaska Airlines	ALPA	5
Ron	Utecht	United Airlines, Inc.		5
Ray	Valeika	Delta Air Lines		5
Kathy	Abbott	National Aeronautics & Space Adm., Langley		6
Ross	Beins	Collins Air Transport Systems Division		6
Robert	Brayton	Continental Express, Inc.	RAA	6
Bob	Buley	Northwest Airlines	ATA	6
Jim	Enias	FAA	FAA	6
Dan	Ford	ComAir, Inc.	ALPA	6
Peter	Foreman	Canadian Air Line Pilots Association	CALPA	6
Steve	Fulton	Alaska Airlines		6
Wally	Gillman	American Airlines		6
David	Haase	Trans World Airlines	ALPA	6
Sharon	Hecht	FAA	FAA	6
Robert	Hilb	United Parcel Service		6
Tom	Imrich	FAA	FAA	6
William	Mosley	FAA	FAA	6
Bud	Musser	Delta Air Lines	ALPA	6
Don	Pate	FAA	FAA	6
William	Russell, III	Air Transport Association	ATA	6
Barton	Schmidt	Mesaba Airlines, Inc.		6
Frank	Tullo	Continental Airlines		6
Thomas	Twiggs	Boeing Commercial Airplane Company		6
David	Wells	Federal Express Corporation	ALPA	6
Thomas	Accardi	FAA	FAA	9
Doc	Carver	OFCM		9

APPENDIX A
PARTICIPANT LIST

First Name	Last Name	Company	Represent	Workshop
John	Clabes	FAA	FAA	9
Marie	Doll	Transport Canada		9
Ed	Duchnowski	Alaska Airlines		9
Alison	Duquette	FAA	FAA	9
Peggy	Gilligan	FAA	FAA	9
Patrick	Gouge	Trans World Airlines		9
Sheryl	Hammans	FAA	FAA	9
David	Hyde			9
Tim	Neale	Air Transport Association	ATA	9
Peg	Weathers	Department of Transportation		9
Richard	Birnbach	FAA	FAA	N/A
Jim	Hall	National Transportation Safety Board		N/A
David	Hinson	FAA	FAA	N/A
Federico	Peña	Department of Transportation		N/A
Albert	Prest	Air Transport Association	ATA	N/A

Appendix B

Crosswalk of Issues, Approaches, and Initiatives From 1995 Plan to 1996 Plan

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #1: CREW TRAINING

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Issue 1.1 – Need To Accelerate AQP Implementation					
	Develop the capacity to support the initial implementation of the AQP in seven major air carriers and three commuter air carriers with periodic status reports (i.e., at least one AQP program in each such airline). (Initiative 1.1.1) (FY 1995)		✓		
	Continue implementation of AQP in seven major air carriers and three commuter air carriers with periodic status reports (i.e., transitioning multiple aircraft fleets to AQP in each such company). (Initiative 1.1.2) (FY 1996)	✓			
	Support the implementation of AQP in 50% of all major air carriers and 20 commuter air carriers with periodic status reports. (Initiative 1.1.3) (FY 1998)	✓			
Approach 1.1.A – Reduce Administrative Complexity Of AQP					
	Form an FAA/Industry Task Force to consider development steps/streamlining administrative aspects. (Initiative 1.1.4) (FY 1995)		✓		

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #1: CREW TRAINING

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Develop draft AC 120-54 revision on AQP for approval process. (Initiative 1.1.5) (FY 1997)			Date	FY 1996
Approach 1.1.B – Expand The Existing FAA Initiative To Develop And Distribute A "Model AQP"					
	Develop model AQP for FAR Part 135 operators. (Initiative 1.1.6) (5/96)	✓			
	Develop refined model AQP for Part 121 and 135 operators. (Initiative 1.1.7) (FY 1997)	✓			
Issue 1.2 – Lack Of Regional Airline Familiarity With AQP					
	Develop the capacity to support the initial implementation of the AQP in seven major air carriers and three commuter air carriers with periodic status reports (i.e., at least one AQP program in each such airline). (Initiative 1.2.1) (FY 1995)		✓		
Approach 1.2.A – Conduct AQP Training Seminars At Appropriate Industry Conferences					

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #1: CREW TRAINING

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	A joint government/industry AQP working group has developed and will conduct AQP seminars. – Initial presentation to RAA members will take place at 1995 RAA CRM Conference. (Initiative 1.2.2) (3/95)		✓		
	The first AQP workshop for regionals and other interested parties will be held at the AQP Working Group meeting. (Initiative 1.2.3) (5/95)		✓		
	RAA participation on FAA/Industry Task Force on AQP streamlining. (Initiative 1.2.4)		✓		
				New	New Initiative: Continue AQP workshop training. (Ongoing)
Issue 1.3 – Timely Processing And Approval Of Air Carrier AQP Documents					
	Develop the capacity to support the initial implementation of the AQP in seven major air carriers and three commuter air carriers with periodic status reports (i.e., at least one AQP program in each such airline). (Initiative 1.3.1) (FY 1995)		✓		

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #1: CREW TRAINING

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 1.3.A – Explore Possibilities For Augmenting FAA AQP Staff			✓		
	FAA will provide additional staff to improve AQP processing. (Initiative 1.3.2) (4/95)		✓		
Issue 1.4 – Emphasize FAR 142 Approval					
Approach 1.4.A – Accelerate The Approval Process					
	Final Rule completion. (Initiative 1.4.1) (3/25/95)			Date	5/96
Issue 1.5 – Allow Second In Command To Proceed From Level C Training To Initial Operating Experience Without Additional Aircraft Training					

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #1: CREW TRAINING

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 1.5.A – Loft Training Is A Proven Asset, Amend The Regulation To Eliminate The Aircraft Requirement					
	Develop simulator training criteria and incorporate them in FAR Part 121 (Appendix H). (Initiative 1.5.1) (FY 1995)			Date Content	6/96 Delete (Appendix H) because reference is obsolete.
				New	New Initiative: Formalize AQP into a rule instead of a special rule. (12/96)
Issue 1.6 – Allow The FAR 121.434 Required FAA Observation To Be Accomplished By A Check Airman Or Airline Program Designees				Date	3/96
Approach 1.6.A – Allow Carriers To Use The APM Program To Perform This Function					
	Requires regulatory change. FAA will work with ATA training committee to validate a need for a universal change. (Initiative 1.6.1) (FY 1995)		✓		

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #1: CREW TRAINING

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
					New Initiative: The FAA must respond to the ATA recommendations. (6/96)
				New	Received from WG #6. Initiative 6.4.1: Develop criteria for the certification of designees enabling them to develop instrument approach and departure procedures in accordance with existing FAA criteria. (FY 1996)
Issue 1.7 – Aviation Problem And Adverse Trend Information Is Not Available From The FAA		✓		Delete	Moved to WG #3. Group recommends a linkage between data and training programs. (Keep Issue 1.7 with Initiative 1.7.6.)
	Develop a plan to make NASDAC data available. (Initiative 1.7.1) (FY 1995)			Delete	Moved to WG #3.
	Develop a plan for the use of de-identified digital in-flight operational information to monitor aircraft status and operational events. (Initiative 1.7.2) (FY 1995)			Delete	Moved to WG #3.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #1: CREW TRAINING

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 1.7.A – Offer Easily Accessible Safety Information System Similar To Commercially Available On-Line Information Systems				Delete	Moved to WG #3. (Keep Approach 1.7.A with Initiative 1.7.6.)
	Initiate cooperative digital data acquisition with industry for research to develop analysis strategies. (Initiative 1.7.3) (FY 1996)			Delete	Moved to WG #3.
	Implement the use of de-identified digital in-flight operational information to monitor aircraft status and operational events. (Initiative 1.7.4) (FY 1997)			Delete	Moved to WG #3.
	Initiate a process to use industry-collected data to identify systemic problems related to aircraft design and manufacture. (Initiative 1.7.5) (FY 1997)			Delete	Moved to WG #3.
	Determine applicability of digital in-flight operational information and simulator training information to pilot training and qualification. (Initiative 1.7.6) (FY 1997)			Date	FY 1998
Issue 1.8 – Strengthen CRM To Include Flight Attendants And Dispatchers					

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #1: CREW TRAINING

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 1.8.A – Include This Element In The Rulemaking				Date	12/14/95
	Air carrier training NPRM addresses this issue. (Initiative 1.8.1) (12/94)			Date	12/14/95
	Revise AC 120-51A to address CRM. (Initiative 1.8.2) (2/95)		✓		
	Develop an NPRM requiring scheduled commuter air carriers operating aircraft with more than nine seats to conform to the same level of safety required of major air carriers. (Initiative 1.8.3) (3/95)			Date	12/14/95
	Develop an AC for dispatcher resource management. (Initiative 1.8.4) (FY 1995)		✓		
				New	New Initiative: Research the effectiveness and feasibility of conducting joint CRM training. (FY 1997)
Issue 1.9 – Amend FAR Part 135 To Require Operators Carrying 10 Or More Passengers In Scheduled Service To Comply With FAR Part 121 Training Requirements				Date	12/14/95

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #1: CREW TRAINING

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 1.9.A – In Addition To The Forthcoming NPRM: – Add The Reservation That Equipment Limitations Such As Lack Of Cockpit Jumpseats Be Recognized – Phase Compliance If The Compliance Plan Is Submitted By A Predetermined Date				Date	12/14/95
	Develop an NPRM requiring scheduled commuter air carriers operating aircraft with more than nine seats to conform to the same level of safety required of major air carriers. (Initiative 1.9.1) (3/95)			Date	12/14/95
Approach 1.9.B – Include Incentives In The Form Of Tax Credits For Compliance And For The Development Of Simulators And Advanced Training Devices For Smaller Carriers				Delete	Group felt that item was not clearly thought out at the time of creation and is not within the team's purview.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #1: CREW TRAINING

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Administration policy determination necessary. (Initiative 1.9.2)			Delete	Group felt that item was not clearly thought out at the time of creation and is not within the team's purview.
				New	New Issue: The Sharing Of Training Expertise/Initiatives
				New	New Initiative: Promote the exchange of training expertise/initiatives with code-share partners and others. (FY 1996)
Issue 1.10 – Research On New Technologies Is Necessary				Content	Identify And Develop Promising New Approaches To Training Evaluation
Approach 1.10.A – Emphasize The Following Areas: – Human Factors – Fatigue - Stress, Complacency: – Crew Duty And Rest, – Scheduling – Crew Resource Management				Content	FAA Will Publish A Revised National Plan For Aviation Human Factors

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #1: CREW TRAINING

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	FAA will publish a revised national plan for aviation human factors. (Initiative 1.10.1) (4/95)			Delete	Moved from an Initiative to an Approach--1.10.A.
	Establish the national database for aviation human factors research as a national resource and coordination mechanism. (Initiative 1.10.2) (FY 1995)			Delete	Move to WG #3.
	Develop a process to access, integrate, and analyze flight crew human factors data relevant to aviation safety. (Initiative 1.10.3) (FY 1995)			Date Content	FY 1998 Develop and validate a process to access, integrate, and analyze flight crew human factors data relevant to aviation safety. Initiate and implement the use of flight crew human factors data in the development of relevant training. (Consolidated Initiatives 1.10.3 and 1.10.5.)
	Revise AC 120-51A to address CRM. (Initiative 1.10.4) (2/95)		✓		
	Validate a process to access, integrate, and analyze flight crew human factors data relevant to aviation safety. (Initiative 1.10.5) (FY 1996)			Delete	Move to WG #3.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #1: CREW TRAINING

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Approach: In Cooperation With Users, Increase Applied Research On Training Strategies, Training Equipment, CRM, And Their Integration
				New	New Initiative: Charter a user steering committee consisting of government, users, manufacturers, and academia to formulate an approach. (3/96)
				New	New Initiative: Develop, execute, and refine a phased training and evaluation research plan. (9/96)
Issue 1.11 – Simulation Should Be Used More Widely					
Approach 1.11.A – Require Aircraft Manufacturers To Provide Accessible Data Packages				Date Content	FY 1998 NPRM To Amend FAR 121 To Require Simulator Training
	Some manufacturers are voluntarily doing this now. (Initiative 1.11.1) (Ongoing)			Delete	Consolidated into Approach 1.11.A.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #1: CREW TRAINING

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	NPRM to amend FAR 121 to require simulator training. (Initiative 1.11.2) (10/95)			Delete	Consolidated into Approach 1.11.A.
Approach 1.11.B – Use Flight Training Simulation As Primary – Expand The Use Of Level C Simulators – Require Simulator Windshear Training Both 121 And 135 – Allow More Flight Training Credit In Simulators And Training Devices				Delete	Already addressed in other issues.
	Develop simulator training criteria and incorporate them in FAR Part 121 (Appendix H). (Initiative 1.11.3) (FY 1995)			Delete	Already addressed in other issues.
				New	New Issue: Expand Utility Of Model AQP For All Airlines
				New	New Initiative: Port to Microsoft family of ACCESS/EXCEL/WORD. (FY 1997)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #1: CREW TRAINING

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Initiative: Add utilities for accomplishing AQP performance data analysis and trending. (FY 1997)
				New	New Initiative: Provide continuing resources to refine the model AQP based on airline user input. (FY 1997)
				New	New Issue: Lack Of Emphasis On CFIT And Situational Awareness
				New	New Initiative: Place emphasis on CFIT and situational awareness in training programs. (FY 1996)
				New	New Issue: TCAS Response Training For Airmen
				New	New Initiative: Provide appropriate TCAS response training in flight simulators or training devices. (FY 1997).

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #1: CREW TRAINING

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Issue: Safety Training Devices Used For Flight Attendant Training
				New	New Initiative: Encourage the use of cabin mockup/devices for flight attendant safety training. (FY 1998)
				New	New Issue: Application Of Aviation Trust Fund Revenues To Safety Initiatives
				New	New Initiative: Introduce legislation in FY 1996 to apply Aviation Trust Fund revenues to aviation safety initiatives. (FY 1996)
				New	New Issue: FAR 121 Subparts N&O
				New	New Initiative: Rewrite FAR 121 subparts N&O. (FY 1998)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #1: CREW TRAINING

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Issue: Inspector Training Needs To Be Improved And Standardized
				New	New Initiative: Charter a group to identify areas to improve FAA inspector training and standardization. (FY 1996)
				New	New Issue: Administrative Complexity Of Rulemaking Process
				New	New Initiative: Reduce administrative complexity of rulemaking and streamline process. Those agencies involved with rulemaking process should be held accountable for meeting established timelines. Periodic status reports should be made available on-line (e.g., Internet). (FY 1997)
				New	New Issue: Need For Electronic Transmission Of AQP Tools, Documents, And Data

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #1: CREW TRAINING

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Initiative: Establish enhanced capability for electronic transmission of AQP tools, documents, and data regardless of user software. (FY 1997)
				New	New Issue: Training Equipment For AQP Continuing Qualification
				New	New Initiative: Revise level A&B simulator qualification standards to enable more affordable training equipment for AQP continuing qualification. (FY 1996)
				New	New Issue: Lack Of Clarity In AC 120-53 Process
				New	New Initiative: Clarify AC 120-53 process. (FY 1996)
				New	New Issue: AQP Is Not Used In Flight Attendant Training

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #1: CREW TRAINING

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Initiative: Promote implementation of AQP for flight attendant training. (FY 1996)
				Delete	Received from WG #6. Issue 6.4: Appropriate Training For Utilization Of New Technology Same as Issue 1.1.
				Delete	Received from WG #6. Approach 6.4.A: Increased Use Of Designees Same as Issue 1.6.
				Delete	Received from WG #6. Approach 6.4.B: Refresher Training For Maintenance Of Basic Flying Skills When Automation Fails Same as Issue 1.9.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #1: CREW TRAINING

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				Delete	Received from WG #6. Initiative 6.4.2: Develop simulator training criteria and incorporate them in FAR Part 121 (Appendix H). (FY 1995) Same as Issue 1.5.
				Delete	Received from WG #6. Approach 6.4.C: Train To Reality Same as Approach 1.5.A.
				Delete	Received from WG #6. Initiative 6.4.3: Develop simulator training criteria and incorporate them in FAR Part 121 (Appendix H). (FY 1995) Same as Approach 1.5.
				Delete	Received from WG #6. Approach 6.4.D: Improve Training For FAA Inspectors Same as Issue 1.18.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #1: CREW TRAINING

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				Delete	Received from WG #6. Initiative 6.4.4: Update Flight Standards Master Plan for inspector training. (Completed 1/95.) Same as Issue 1.18.
				Delete	Received from WG #6. Initiative 6.4.5: Develop comprehensive Training Development Process which will establish process for design, development, and evaluation of FAA inspector training consistent with best practices ISD. (FY 1996) Same as Issue 1.18.
				Delete	Received from WG #6. Issue 6.5: Airport Surface Operations Need The Same Degree Of Care And Scrutiny As Inflight Operations Same as Issue 1.11.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #1: CREW TRAINING

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				Delete	Received from WG #6. Approach 6.5.B: Improve Communication Technologies And Procedures Too general to be included as an approach.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Air Traffic Control					
Issue 2.1 – Runway Incursion Technology Improvements		✓			
Approach 2 .1.A – Accelerate Implementation Of Technology Designed To Prevent Runway Incursions		✓			
	FAA will issue Revised Runway Incursion Plan. (Initiative 2.1.1) (3/95)		✓		
				New	New Initiative: FAA should immediately establish the Surface Movement Team as described in the Runway Incursion Action Plan signed by all the Associate Administrators in April 1995 and expedite the commitments made in the Runway Incursion Action Plan. (4/1/96)
	40 airports were in apparent non-compliance regarding signage on 1/1/95. Airports have been notified; FAA is aggressively enforcing standards. (Initiative 2.1.2) (5/95)			Date Content	2/2/96 Request a status report on the 18 non-complying airports, and any current exemptions and reasons why.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	A simple, low-tech and low-cost solution, such as paint marking, can be deployed. A new specification to improve pavement markings by using beads in paint will be issued by FAA. (Initiative 2.1.3) (5/95)		✓		
	Establish standards for cockpit moving map displays to enhance situational awareness on the airport surface. (Initiative 2.1.4) (FY 1996)			Content	Encourage RTCA Special Committee 159 to develop and adopt standards for cockpit moving map displays to enhance situational awareness on the airport surface as soon as possible.
Approach 2.1.B – Accelerate Implementation Of Technology Designed To Prevent Runway Incursions For Example: – ADS-B, ASDE-3, AMASS					
	Issue RFP for ASDE-X radars. (Initiative 2.1.5) (FY 1997)			Content	All funds from Inductive Loop Technology Demonstration should be redirected to support the ASDE-X radars.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Thirty-three ASDEs will be implemented by 1997, and the next seven by 1999. AMASS schedule will follow ASDE. (Initiative 2.1.6) (FY 1997)			Content	Thirty-three ASDEs will be implemented by 1997, and the next seven by 1999. FAA needs to reassess the criteria used to establish where ASDEs are going and get it into top 100 airports as soon as possible. Weather was too highly considered. The AMASS schedule will follow ASDE.
	Commence installation of AMASS at ASDE-3 sites. (Initiative 2.1.7) (FY 1997)			Content	Commission and install AMASS at all ASDE-3 sites as soon as possible. Combined 2.1.7 and 2.1.8.
	Complete installation and commissioning of AMASS at ASDE-3 sites. (Initiative 2.1.8) (FY 1999)				Same as above.
	Complete definition of Airport Surface Automation functional requirements considering human factors data, in cooperation with airport operators and other ATC system users. (Initiative 2.1.9) (6/95)			Delete	
	Implement data link for GPS-based ADS capability on the airport surface. (Initiative 2.1.10) (FY 1998)			Content	Implement ADS-B capability on the airport surface to include tags for all the aircraft and vehicles deemed appropriate by the FAA.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 2.1.C – Accelerate Implementation Of Technology Designed To Prevent Runway Incursions, For Example: – FAA Should Study The Use Of Synthetic And/Or Enhanced Vision Technology To Prevent Runway Incursions					
				New	New Initiative: FAA has advised non-support of this project. This working group requests that the FAA rebrief RAA, ATA and ALPA on the status of this project to determine further disposition. (5/96)
	Develop operational concept and requirements for the 21st century airport. (Initiative 2.1.11) (FY 1995)			Delete	
	Joint research initiatives underway between ARPA, NASA, DOD, FAA and Industry. (Initiative 2.1.12) (FY 1995)			Date Content	3/96 Joint research initiatives should only be funded if they have a high impact on reduction of runway incursions.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Issue 2.2 – Training On Procedures For Surface Operations Are Generally Not As Detailed And Formalized As Those For Flight Operations					
Approach 2.2.A – FAA/Users Should Develop Standard Procedures And Verbal Coordination For Surface Operations, And Then Ensure That Training Reflects These Upgrades. General Aviation Interests Should Also Upgrade Pilot Procedures For Single-Pilot Operations.					
	FAA will issue Revised Runway Incursion Plan. (Initiative 2.2.1) (3/95)			Delete	

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Initiative: FAA will form FAA/Industry group to further build on foundation established by August 1995 FAA/Industry review of TIPH procedures and human factors. This group will review current procedures, performance, and training issues and recommend any additional actions necessary.
	FAA will develop and refine standard taxi procedures and routes in coordination with ATPAC. (Initiative 2.2.2) (7/95)			Date Content	4/96 Add: This working group encourages the FAA to brief ATPAC in April 1996 and to implement procedures as soon as possible.
	Approve surface movement guidance and control plans at all airports operating below 1,200-foot RVR. (Initiative 2.2.3) (FY 1996)			Date Content	2/96 Add: This working group requests a status report of airports complying with this initiative be provided by February 1996.
	The PTS for pilots will be upgraded so that all pilots can demonstrate practical knowledge. (Initiative 2.2.4) (FY 1996)			Content	The PTS for pilots will be upgraded so that all pilots can demonstrate practical knowledge of surface operations.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	FAA will form a government/industry working group to develop controller and pilot standards for surface and low visibility operations. (Initiative 2.2.5) (FY 1995)		✓		
Issue 2.3 – Cockpit Automation Devices For Displaying The Aircraft's Position On The Airport				Delete	
Approach 2.3.A – Agency Should Further Encourage And Conduct Research And Development Of Moving Map Technology For Complex Airport Environments				Delete	
	Establish standards for cockpit moving map displays to enhance situational awareness on the airport surface. (Initiative 2.3.1) (FY 1996)			Delete	
	(Note: Manufacturers are tying moving map capabilities to their on-board library systems for advanced cockpit aircraft.) (Initiative 2.3.2) (Ongoing)			Delete	

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Issue 2.4 – Use Of Non-Standard Phraseology By Pilots And Controllers					
				New	New Initiative: FAA will lead a project to develop a "user friendly" pamphlet to explain commonly used phrases and clearances. It will explain what actions are expected on the part of pilots and controllers and consider issues associated with foreign flag carriers pilots. FAA has advised that this pamphlet will be completed by July 1996.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 2.4.A – Develop A Publication Of Standard ATC Communication Phraseology For Pilots And Controllers – Publication Must Provide Definitions Of ATC Communications Words/Phraseology To Facilitate And Ensure Common Understanding And/Or Basis To Know Other Party's Intentions/ Expectations				Delete	Consolidated in new initiative above.
	FAA will lead a project to develop a "user friendly" pamphlet to explain commonly used phrases and clearances. It will explain what actions are expected on part of pilots and controllers and consider issues associated with foreign flag carrier pilots. (Initiative 2.4.1) (4/95)			Delete	Consolidated in new initiative above.
	Provide recommendations on pilot/ controller communication procedures. (Initiative 2.4.2) (FY 1995)			Delete	Consolidated in new initiative above.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Issue 2.5 – Blockage Of ATC Communications Due To Stuck Microphones And Simultaneous Communication				Date	FY 1996
Approach 2.5.A – Research And Review Available Technology To Eliminate Blockage					
				New	New Initiative: This working group requests that the Steering Committee be provided a status report on blocking technologies in February 1996.
	MOPS have been developed. (Initiative 2.5.1)			Delete	Consolidated in new initiative above.
	New products are being tested by FAA. (Initiative 2.5.2) (7/95)			Delete	Consolidated in new initiative above.
Approach 2.5.B – Mandate Implementation Of Successful Technology				Delete	Consolidated in new initiative above.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	FAA will develop appropriate ground/air implementation plan. (Initiative 2.5.3) (FY 1996)			Delete	Consolidated in new initiative above.
Issue 2.6 – Use And Proficiency In Spoken English – Foreign Flag Carrier Pilots And Foreign Controllers					
				New	New Initiative: This working group recommends the SAE G-10 Committee should continue its current effort to determine the most effective approach to addressing these issues.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 2.6.A – FAA Should Propose To ICAO: – A Spoken English Test For All Commercial Pilots – Controllers Be Required To Pass Spoken English Test And Use Only English On ATC Radios To All Aircraft – Standardized ICAO Phraseology By Pilots And Controllers				Delete	Consolidated in new initiative above.
	FAA will develop standards for proposal to ICAO. (No ICAO standard currently exists which identifies English as the official international language to be used in ATC.) (Initiative 2.6.1) (4/95)			Delete	Consolidated in new initiative above.
Approach 2.6.B – Pilots Must Be Made Aware Of Any Country Differences From ICAO Standardized Phraseology				Delete	Consolidated in new initiative above.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Identify differences between ICAO phraseology and US phraseology. (Initiative 2.6.2) (4/95)			Delete	Consolidated in new initiative above.
				New	Received from WG #6. Issue 6.5: Airport Surface Operations Need The Same Degree Of Care And Scrutiny As Inflight Operations Acceptance pending clarification.
				New	Received from WG #6. Approach 6.5.B: Improve Communication Technologies And Procedures Acceptance pending clarification.
				New	Received from WG #6. New Initiative: The FAA should expeditiously complete development of criteria for LASHO operations. Ensure all LASHO procedures incorporate failure contingency provisions in the event of human or mechanical failure. Acceptance pending clarification.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	Received from WG #6. Issue 6.6: User/ATC Cooperation Needs To Be Enhanced To Maximize The Benefits From Existing And Emerging Technologies Acceptance pending clarification.
				New	Received from WG #6. Initiative 6.6.1: Initiate a national airspace analysis to identify system inefficiencies. (FY 1995) Acceptance pending clarification.
				New	Received from WG #6. Initiative 6.6.2: Complete strategic definition of relation between Traffic Management planning responsibilities, human factor elements, and "real-time" ATC responsibilities. Make sure these agreements are fully reflected in ongoing programs and plans for ground and cockpit automation. (FY 1995) Acceptance pending clarification.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	Received from WG #6. Initiative 6.6.3: FAA will accelerate the development of new ATC procedures (FAA Order 7100.11). (FY 1995) Acceptance pending clarification.
				New	Received from WG #6. Approach 6.6.A: Encourage The Use Of Data Link For Routine Communications (ATIS, PDC, Etc.) Acceptance pending clarification.
				New	Received from WG #6. Initiative 6.6.4: Achieve agreement with user community on implementation of two-way data link. (FY 1995) Acceptance pending clarification.
				New	Received from WG #6. Initiative 6.6.5: Establish data link system architecture and system implementation plan. (FY 1995) Acceptance pending clarification.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	Received from WG #6. Initiative 6.6.6: Expand data link delivery of PDCs to 27 additional airports. (FY 1995) Acceptance pending clarification.
				New	Received from WG #6. Initiative 6.6.7: Provide ATIS via data link at 60 airports. (FY 1996) Acceptance pending clarification.
				New	Received from WG #6. Initiative 6.6.8: Conduct flight trials of data-link-based traffic and weather information services for general aviation. (FY 1995) Acceptance pending clarification.
				New	Received from WG #6. Initiative 6.6.9: Complete definition of Data Link System to support DGPS and other CNS/ATM operations. Achieve early approval of 1030 MHz for DGPS transmission (per draft RTCA report and industry endorsement). (FY 1996) Acceptance pending clarification.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	Received from WG #6. Approach 6.6.B: Establish A Mechanism For Increased Involvement Of Operators In The Development Of Localized ATC Procedures Acceptance pending clarification.
				New	Received from WG #6. Initiative 6.6.10: Develop criteria for the certification of designees enabling them to develop instrument approach and departure procedures in accordance with existing FAA criteria. (FY 1996) Acceptance pending clarification.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	Received from WG #6. Initiative 6.6.11: Air Traffic will place a great deal of emphasis on user involvement in procedures development and will hold regular and numerous regional listening sessions with users. Air Traffic, in consultation with primary users, accomplished development of FMS approaches in 1994. Additional sites are planned for 1995. (FY 1995) Acceptance pending clarification.
				New	Received from WG #6. Approach 6.6.C: Maximize The Use Of SID/ STAR Profiles Acceptance pending clarification.
				New	Received from WG #6. Initiative 6.6.12: Incorporate dynamic user flight intention data in the ETMS. (FY 1996) Acceptance pending clarification.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	Received from WG #4. Issue 4.2: NAS/Air Traffic Systems/Airports Acceptance pending clarification.
				New	Received from WG #4. Approach 4.2.A: Enhance ATC Acceptance pending clarification.
				New	Received from WG #4. Initiative 4.2.1: Clearly define role and direction of ATCSCC in strategic and tactical management of operations in global air traffic management system. (FY 1995) Acceptance pending clarification.
				New	Received from WG #4. Initiative 4.2.12: Initiate a demonstration of participatory separation utilizing TCAS/ACAS for in trail descent and wake vortex Acceptance pending clarification.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	Received from WG #4. Issue 4.3: Navigation Acceptance pending clarification.
				New	Received from WG #4. Approach 4.3.B: Implement GPS capabilities ASAP Acceptance pending clarification.
				New	Received from WG #4. Initiative 4.3.12: Determine feasibility of GPS for CAT II and CAT III operations. (FY 1996) Acceptance pending clarification.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Weather					
Issue 2.7 – Respond To Recommendations On Weather – National Aviation Weather Users' Forum Recommendations - 1994 – National Research Council Report - March 1994: – Published As "Weather For Those Who Fly" – Previous Reports - 1991, 1992, 1993				Content	Respond To: Briefing On Recommendations Of National Aviation Weather Users Forum, December 1995 National Research Council Report - March 1994: – Published As "Weather For Those Who Fly" Aviation Weather Services. A Call For Federal Leadership And Action, 1995 Final Report Of The Aviation Weather Subcommittee, October 1995
Approach 2.7.A – FAA, NWS, Industry Should Commit To Implementation And Completion Of Action Plans Based On Above				Content	FAA Must Establish Statement Of Requirements For Weather Products And Services

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	FAA Action Plan has been completed. Coordination of action plan with industry will be initiated. (Initiative 2.7.1) (3/95)			Date Content	FY 1996 FAA/Industry must develop a specific action plan in conjunction with service providers and product users which will speak specifically to products and the implementation/commissioning dates. DOD, NASA, NSF, and NWS should be mandated to participate in the development and publication.
				New	New Issue: FAA Should Officially Task The NWS With Aviation Weather Products In Response To FAA Needs
				New	New Approach: FAA And NWS Should Meet At Least Annually In Accordance With The 1977 FAA/NOAA Memorandum Of Agreement To Define NWS Response To FAA's Aviation Weather Needs
				New	New Issue: Delay In Deployment Of Improved Technologies

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Approach: Expedite Deployment Of Demonstrated Technologies That Can Make A Near-Term Leap Forward In Aviation Weather Services And Safety (e.g., ASOS, TDWR, ITWS, RVR, Automated A/C Observations, Automated ATIS, And TWIP)
Issue 2.8 – Collection And Dissemination Of Real-Time Weather Information				Content	Improve The Collection And Dissemination Of Timely Weather Information
	Complete integration of TDWR and LLWAS (enhanced) at airports with both systems installed. (Initiative 2.8.1) (FY 1995)			Date	FY 1996
	Conduct flight trials of data-link-based traffic and weather information services for general aviation. (Initiative 2.8.2) (FY 1995)		✓		

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	DLP-2, which will disseminate alphanumeric weather products and en route ATC clearances including warnings, directly to the cockpit through high resolution Doppler radar. (Initiative 2.8.3) (FY 1998)	✓		Content	Deploy data link capability which will disseminate alphanumeric weather products and en route ATC clearances, including weather, directly to the cockpit through high resolution Doppler radar.
	Provide high resolution Doppler radar products directly to the controllers' displays. (Initiative 2.8.4) (FY 1998)	✓			
				New	New Approach: Place Highest Priority On The Development And Deployment Of Effective Means For Timely Dissemination Of A Broad Suite Of Products In The Following Aviation Weather Service Areas: Convective Hazards, Ceiling And Visibility, Icing, Turbulence, Surface Observations, Microbursts And Windshear Observations, Volcanic Ash, Routine Weather, International Weather (PIREPS And Graphics), And De-Icing. Pursue The Following Short-Term Initiatives:

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Initiative: Report RVR on SAO/METAR reports. (FY 1996)
				New	New Initiative: Implement FAA COMS to tie in all ASOS into national network. (Ongoing from FY 1996)
				New	New Initiative: Develop and deploy the ground infrastructure to support multiple government and private data links, including HF, VHF, SATCOM, and Mode S. (FY 1996)
				New	New Initiative: Employ objective, indexed descriptions for icing, turbulence, and convective hazards. (FY 1996)
				New	New Initiative: Employ user-friendly graphics generated by government and private vendors to the maximum extent possible. (FY 1996)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Issue: Observations And Forecasts Need To Be Improved
				New	New Approach: Address 10 Aviation Weather Hazards And Services (See *Recommendations Of National Aviation Weather Users Forum,* December 1995)
Approach 2.8.A – FAA Should Appoint A Single Senior Level Manager/Office To Expedite Implementation And Coordination Of Weather Systems And Services				Content	New Issue: FAA Must Vigorously Fulfill The Lead Agency Role In Aviation Weather Services And Related Research (Ongoing from FY 1996)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	FAA will investigate feasibility of this recommendation. (Note: Industry also recommends that in the long run, NWS aviation functions be transferred to FAA.) (Initiative 2.8.5) (FY 1995)			Content	New Approach: FAA Leadership, With Shared Partnership Responsibilities Accepted By NWS, DOD, NASA, And NSF Will Provide A Clear Vision Of Aviation Weather Requirements And A Strategy For The Provision Of Services And Supporting R&D. Formulation Of Such A Strategy Must Address The Potential Of The Private Sector As A Provider Of Products And Services.
				New	New Initiative: FAA should provide the leadership, establish the priorities, and ensure the funding needed to improve weather services for all aviation weather users and to strengthen related research. (Ongoing from FY 1996)
				New	New Approach: FAA Should Designate A Senior Official At A Higher Level Than ATR-400 To Assume Overall Responsibility For Carrying Out The FAA's Role As Lead Agency

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Issue: Common Situational Awareness Of Hazardous And Operationally Significant Weather
				New	New Initiative: Employ extensive use of two- and three-dimensional color graphics of weather for pilots, controllers, and dispatchers. (Ongoing from FY 1996)
				New	New Initiative: Make available the ability to zoom from global, national, regional, and local framework to allow users to understand weather situations in any geographical domain relevant to user (e.g., a Chicago dispatcher sees a Dallas/Ft. Worth ITWS). (Ongoing from FY 1996)
				New	New Initiative: Focus on operational decision aids to maximize safety and efficiency of flight system capacity needs. (Ongoing from FY 1996)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Initiative: Focus on both hazardous weather and weather conditions that may not be hazardous, but which impact operations (e.g., microburst vs. high resolution winds aloft, observations and forecasts). (Ongoing from FY 1996)
Issue 2.9 – Need Additional Airmen Education In Weather (ATC/Dispatch/Pilot)				Content	Need Additional Airmen Education In Weather (ATC/Dispatch/Pilot) And Others (e.g., Ops. Personnel)
Approach 2.9.A – FAA Should Establish An Elevated Standard For Airman Knowledge Of Weather/Atmosphere				Content	FAA Should Establish An Elevated Standard For Airman Knowledge Of Weather/ Atmosphere and Develop Segmented Testing On Examinations
	FAA will review written testing on weather, focusing on practical rather than theoretical weather knowledge. (Initiative 2.9.1) (5/95)			Date	FY 1996
Approach 2.9.B – Train Airmen On The Uses Of New Weather Technologies				Content	Train Airmen On The Uses Of New Weather Technologies (i.e., TDWR, LLWAS, TWIP, ITWS, NEXRAD, Etc.)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Upgrade PTS for pilots to encourage new training. (Initiative 2.9.2) (FY 1996)	✓		Content	PTS for pilots, dispatchers, and controllers.
Approach 2.9.C – Train Airmen On New Report Format(s)					
	FAA will coordinate with NWS to establish new METAR/ METAF codes. (Initiative 2.9.3) (2/95)			Date Content	FY 1996 FAA will coordinate with NWS to establish new METAR/METAF codes.
Approach 2.9.D – Implement ATC-Pilot Interface As A "Team Concept" For Weather Dissemination				Content	FAA Should Develop New Weather Training Aids For Judgment (Similar To Windshear Training Of Airlines) To Include CBT And New Simulator Scenarios
	Conduct flight trials of data-link-based traffic and weather information services for general aviation. (Initiative 2.9.4) (FY 1995)		✓	Delete	Duplicate of Initiative 2.8.2.
	Deploy DLP-2, which will disseminate alphanumeric weather products and en route ATC clearances including warnings, directly to the cockpit through high resolution Doppler radar. (Initiative 2.9.5) (FY 1998)	✓		Delete	Duplicate of Initiative 2.8.2.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Approach: FAA Should Develop Operationally Appropriate Weather Awareness Training For Other Aviation Services And Ground Personnel
				New	New Issue: Aviation Weather R&D Is Fragmented And Subject To Wide Swings In Funding And Agency Support
				New	New Approach: Under Leadership Of The FAA, Develop An Integrated Plan For Aviation Weather R&D. Plan To Include Short- And Long-Term Objectives, Prioritization, Time Lines, And Agency Commitment. (Include FAA, NWS, DOD, NASA, and NSF--in partnership with industry and labor--in the development of integrated plan).
				New	New Initiative: Annually review progress, additions, and modifications to plan. (Ongoing)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	Received from WG #4. Issue 4.4: Structural Icing
				New, Content	Received from WG #4. Initiative 4.4.1: Complete field testing of observations and forecasting of meteorological icing conditions. (FY 1998)
				New	Received from WG #6. Issue 6.2: Standardization Is A Fundamental Ingredient For Safety In Flight Procedures. Accept: Agree, but this is an issue that is important for all workgroups, and no specific action is suggested.
				New	Received from WG #6. Approach 6.2.E: AWOS

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New, Content	Received from WG #6. Initiative 6.2.8: Complete transition plan for phasing-out human weather observers at ASOS sites in a manner consistent with ASOS service standards currently being established jointly between industry users and the government. This initiative is with the full recognition that higher standards will be necessary for certain (large air carrier airport) sites. (FY 1998)
				Delete	Received from WG #6. Initiative 6.2.5: FAA will investigate the feasibility of Workshop #2's recommendation to appoint a single senior level manager/office to expedite implementation and coordination of weather systems and services. (Note: Industry also recommends that, in the long run, NWS aviation functions be transferred to FAA.) (FY 1995) Identical to 7.4.A.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #2: AIR TRAFFIC CONTROL AND WEATHER

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				Delete	Received from WG #6. Initiative 6.2.6: Increase the capability of on-site weather information to improve forecast and terminal reporting by implementing ASOS. (FY 1996) ASOS implementation that would address this is well under way.
				Delete	Received from WG #6. Initiative 6.2.7: Provide further increase of the capability of on-site weather information to improve forecast and terminal reporting by further implementation of ASOS. (FY 1997) ASOS implementation that would address this is well under way.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Issue 3.1 – Airline Safety Partnership Programs Would Encourage Airline Personnel To Provide Timely Safety Information				Content	Add: (Priority attention should be given to initiatives 3.1.1 and 3.1.2 to remove all deterrents to data collection, including the following conditions currently being proposed by the FAA in amendment #20 to FAA Order 2150-3a: (1) administrative or legal enforcement action applied to sole source reports, (2) exclusion of repeat occurrences.)
Approach 3.1.A – Establish Working Relationships Between Airline Employees, Management, And The FAA		✓			
	Airline Safety Programs are underway at several major US carriers. FAA will issue guidance for memorandum of understanding that will lead to additional partnerships. (Initiative 3.1.1) (3/95)			Date Content	1/1/96 FAA shall involve the ASAP Industry Task Force AC working group in the development of language for ASAP Memorandums of Understanding and AC.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 3.1.B – FAA Should Provide Standardized Policy And Procedures For The Use Of Airline Safety Partnership Programs		✓			
	FAA will finalize Partnership for Safety Programs. (Initiative 3.1.2) (7/95)			Date	1/1/96
Issue 3.2 – Facilitate Implementation Of FOQA Programs		✓			
	ATA/ALPA letter sent to Administrator and a policy change is in development. (Initiative 3.2.1) (2/95)		✓		
	A contract will be awarded to initiate a demonstration project with three industry participants. (Initiative 3.2.2) (4/95)			Date Content	5/95 Remove the word "three".
				New	New Initiative: As a follow-up to Initiative 3.2.1, UTRS will facilitate FAA contract with five airlines to conduct FOQA evaluation programs. (3/96)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 3.2.A – Best Method To Collect Recorded Flight Data Before An Accident Occurs				Content	Develop Proactive Methods To Collect Recorded Flight Data
	Develop a plan for the use of de-identified digital in-flight operational information to monitor aircraft status and operational events. (Initiative 3.2.3) (FY 1995)			Delete	Not applicable.
	Develop FOQA AC guidance (ATA Task Force); will begin with initial products provided under Flight Safety Foundation contract for prototype FOQA program. (Initiative 3.2.4) (FY 1995)			Date Content	12/97 ATA Task Force to recommend FOQA AC guidance to FAA with participation of interested industry parties.
	Initiate cooperative digital data acquisition with industry for research to develop analysis strategies. (Initiative 3.2.5) (FY 1996)			Date Content	FY 1996/97/98 In coordination with ATA Task Force conduct research to identify and develop advanced analysis and technology strategies.
Approach 3.2.B – FAA/DOT Issue Immediate Policy Statement Followed By Rulemaking Exempting FOQA Program Data From Use In Enforcement Action		✓			

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	An FAA policy change is in development. (Initiative 3.2.6) (2/95)			Date Content	09/15/96 FOQA final rule issued by September 15, 1996.
Approach 3.2.C – Encourage Carriers To Develop Test FOQA Program For Basis Of AC				Delete	Redundant with 3.2.4.
	Develop FOQA AC guidance (ATA Task Force); will begin with initial products provided under Flight Safety Foundation contract for prototype FOQA program. (Initiative 3.2.7) (FY 1995)			Delete	Accomplished/Redundant with 3.2.4.
Approach 3.2.D – Industry/Government/Labor Task Force To Develop Means To Share Deidentified Data Within The Safety Community		✓			
	A Task Force is in place to deal with use of FOQA data. (Initiative 3.2.8) (Ongoing)			Content	ATA FOQA Task Force facilitate development of a neutral forum for exchange and analysis of safety data. First meeting scheduled for January 22, 1996.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Implement the use of de-identified digital in-flight operational information to monitor aircraft status and operational events. (Initiative 3.2.9) (FY 1997)			Delete	Redundant with 3.2.8.
	Initiate a process to use industry-collected data to identify systemic problems related to aircraft design and manufacture. (Initiative 3.2.10) (FY 1997)			Delete	Redundant with 3.2.8.
	Determine applicability of digital in-flight operational information and simulator training information to pilot training and qualification. (Initiative 3.2.11) (FY 1997)			Delete	Redundant with 3.2.8.
	Begin using industry-collected data to identify systemic problems in aircraft fleets, aviation personnel, and maintenance. (Initiative 3.2.12) (FY 1997)			Delete	Redundant with 3.2.8.
Issue 3.3 – Prevent Accidents Through Safety Data Analysis – Improve The Quality And Availability Of Safety Data				Content	Prevent Accidents Through Safety Data Collection And Analysis
	Establish FAA/Industry working group to prepare action plan for addressing quality and availability of safety data issues identified in the conference. (Initiative 3.3.1) (9/95)			Delete	Redundant with 3.2.D, 3.2.8, and 3.3.C.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 3.3.A – Centralize And Publicize Availability Of Safety Data				Content	Centralize Safety Data Make Safety Data More Available And Publicize Availability
	Open the NASDAC facility in the FAA Headquarters Building. (Initiative 3.3.2) (FY 1995)			Date	1/96
Approach 3.3.B – Improve Quality Of FAA Databases				Content	Determine Existing Safety Data Systems
				New	New Initiative: FAA OAS will establish FAA/Industry working group and survey and catalog existing and proposed methods and systems to collect, analyze, or disseminate aviation safety data regarding the design, manufacture, operation, and maintenance of aircraft. (NOTE: "Aviation Safety Data" includes, but is not limited to, all FAA safety data, accident/incident data, voluntary and mandatory aviation safety reports, and aviation activity data.) (5/96)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Initiative: FAA OAS will establish FAA/Industry working group and determine how existing aviation safety data are used worldwide, how such data could be improved, and how data could best be used to identify systemic problems regarding the design, manufacture, operation, and maintenance of aircraft. (8/96)
				New	New Initiative: FAA OAS will establish FAA/Industry working group to evaluate the need and desirability of determining how existing safety data are used worldwide, how such data could be improved and how such data could best be used to identify systemic problems regarding the design, manufacture, operation, and maintenance of air traffic control equipment. (8/96)
	Initiate a process to use industry-collected data to identify systemic problems related to aircraft design and manufacture. (Initiative 3.3.3) (FY 1997)			Delete	Redundant with 3.2.D, 3.2.8, and 3.3.C.3.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 3.3.C – Acquire Safety Critical Time Sensitive Information				Content	Develop Future Safety Data Systems
				New	New Initiative: FAA OAS will publish a concept paper that solicits views and ideas regarding how best to collect, analyze, and disseminate aviation safety data to identify and respond to systemic problems with the design, manufacture, operation, and maintenance of aircraft. (3/96)
				New	New Initiative: FAA OAS will establish FAA/International Industry working group and begin the development of a standardized classification system for aviation safety data. (5/96)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Initiative: ATA FOQA Task Force should convene a meeting of the appropriate entities to develop functional specifications regarding how best to prevent accidents through safety data collection, analysis, and dissemination, and to develop one or more prototypes toward accomplishing that goal. This meeting should consider responses from the concept paper when available. (6/96)
				New	New Initiative: FAA OAS will implement and evaluate one or more prototypes to prevent accidents through safety data collection, analysis, and dissemination. (12/96)
	Implement the use of de-identified digital in-flight operational information to monitor aircraft status and operational events. (Initiative 3.3.4) (FY 1997)			Delete	Redundant with 3.2.9.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 3.3.D – Trained Analysts To Utilize Data (Industry And FAA)					Add: (This is a far term approach. Several other approaches and initiatives must be completed before work can begin on this approach and the associated following initiatives.)
	Initiate a process to use industry-collected data to identify systemic problems related to aircraft design and manufacture. (Initiative 3.3.5) (FY 1997)			Date	FY 1998
	Determine applicability of digital in-flight operational information and simulator training information to pilot training and qualification. (Initiative 3.3.6) (FY 1997)			Date	FY 1998
	Begin using industry-collected data to identify systemic problems in aircraft fleets, aviation personnel, and maintenance. (Initiative 3.3.7) (FY 1997)			Date	FY 1998
Approach 3.3.E – Disseminate Data Electronically				Delete	Redundant with 3.3.A.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Develop a plan to make NASDAC data available. (Initiative 3.3.8) (FY 1995)			Date Content	2/96 FAA OAS will develop a plan to make NASDAC data more available, especially by electronic means. Move under Approach 3.3.A.
Issue 3.4 – ASRS Needs Updating And Expanding – Seen As An Immunity Tool – Data Not Used Fully					
Approach 3.4.A – Promote As An Accident Prevention Tool – Encourage Reporting – Expand To Include Maintenance Issues – Encourage Wider Analysis And Utilization				Content	Add ASRS after the word Promote in the first bullet.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Begin implementing recommendations of 1994 NAPA study on ASRS improvement. (Initiative 3.4.1) (FY 1995)			Date, Content	– Protection of ASRS reporters should be extended to all parties eligible to use ASRS reporting form (e.g., pilots, mechanics, flight attendants, ramp personnel, etc.). FAA should confirm original criteria. Develop and publish AC. (1st Qtr 1996) – FAA Office of System Safety be responsible for evaluating means of increasing utilization of ASRS data by the FAA and others. – Increase full-form processing to 40%. STATUS: Elevated to 35% from 20%. FURTHER ACTION: Reach 40%. (6/96) Make program information and reporting forms more accessible. STATUS: Program information and reporting forms and publications on Internet. FURTHER ACTION: Publicize availability. (3/96)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
					– Electronic submission of reports. STATUS: Method identified - Internet; security concerns identified. FURTHER ACTION: ASRS to resolve security concerns and introduce electronic report submission. (6/97; 9/97) – Outreach to flight attendant community. STATUS: Reporting form finalized. FURTHER ACTION: ASRS publicize initiative. (3/96) – Modernization of database systems. STATUS: Alternative systems evaluated. FURTHER ACTION: ASRS implement new generation software. (12/96) (Concurrent with issuance distribution of new reporting forms.)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Initiative: ASAP Task Force evaluate the potential of using the ASRS as a consolidation point for data collected under ASAP programs. (1/97)
				New	New Initiative: ASRS Advisory Subcommittee promote awareness of ASRS publications, capabilities, database search sets, and other products to aviation organizations (carriers, unions, FAA offices, etc.). (12/96)
Issues 3.5 – Protections – Various Concerns Inhibit Reporting Of Data – Punitive Measures – Enforcement – FOIA – Removal Of Concerns Would Facilitate Retrieval Of Better Data					

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 3.5.A – Introduce Regulation And/Or Legislation To Protect Those Providing Safety Data				Content	DOT/FAA Seek Legislative Protection From Disclosure By The Government That Applies To Partnership Programs As Well As Any Other FAA Approved/ Accepted Safety Data Collection Programs. Legislative Protection Is A Top Priority.
	An FAA policy change is in development. (Initiative 3.5.1) (2/95)		✓		
	Administration policy determination necessary. (Initiative 3.5.2)		✓		
				New	New Initiative: FAA to develop legislative initiative for protection of safety data. (4/96)
				Delete	Received from WG #6. Issue 6.3: Safety Procedures Need To Be Paramount In Procedures Development Outside scope of goal and major themes.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				Delete	Received from WG #6. Approach 6.3.B: Establish A Voluntary Disclosure Program That Cannot Be Exploited For Journalistic Sensationalism Similar to Issue 3.1.
				Delete	Received from WG #6. Initiative 6.3.3: Implement the use of de-identified digital in-flight operational information to monitor aircraft status and operational events. Slated for 1997 and should be modified to be completed in 1996. Similar to Issue 3.2.
				Delete	Received from WG #6. Initiative 6.3.4: Initiate a process to use industry-collected data to identify systemic problems related to aircraft design and manufacture. Expand to include Human Factors and develop a system to insure the transmittal of that information to all operators and a feedback mechanism to the manufacturers. Similar to Issue 3.2.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				Delete	Received from WG #6. Issue 6.6: User/ATC Cooperation Needs To Be Enhanced To Maximize The Benefits From Existing And Emerging Technologies Outside scope of goal and major themes.
				Delete	Received from WG #6. Initiative 6.6.1: Initiate a national airspace analysis to identify system inefficiencies. (FY 1995) Outside scope of goal and major themes.
				Delete	Received from WG #6. Initiative 6.6.2: Complete strategic definition of relation between Traffic Management planning responsibilities, human factor elements, and "real-time" ATC responsibilities. Make sure these agreements are fully reflected in ongoing programs and plans for ground and cockpit automation. (FY 1995) Outside scope of goal and major themes.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				Delete	Received from WG #6. Initiative 6.6.3: FAA will accelerate the development of new ATC procedures (FAA Order 7100.11). (FY 1995) Outside scope of goal and major themes.
				Delete	Received from WG #6. Approach 6.6.A: Encourage The Use Of Data Link For Routine Communications (ATIS, PDC, Etc.) Outside scope of goal and major themes.
				Delete	Received from WG #6. Initiative 6.6.4: Achieve agreement with user community on implementation of two-way data link. (FY 1995) Outside scope of goal and major themes.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				Delete	Received from WG #6. Initiative 6.6.5: Establish data link system architecture and system implementation plan. (FY 1995) Outside scope of goal and major themes.
				Delete	Received from WG #6. Initiative 6.6.6: Expand data link delivery of PDCs to 27 additional airports. (FY 1995) Outside scope of goal and major themes.
				Delete	Received from WG #6. Initiative 6.6.7: Provide ATIS via data link at 60 airports. (FY 1996) Outside scope of goal and major themes.
				Delete	Received from WG #6. Initiative 6.6.8: Conduct flight trials of data-link-based traffic and weather information services for general aviation. (FY 1995) Outside scope of goal and major themes.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				Delete	Received from WG #6. Initiative 6.6.9: Complete definition of Data Link System to support DGPS and other CNS/ATM operations. Achieve early approval of 1030 MHz for DGPS transmission (per draft RTCA report and industry endorsement). (FY 1996) Outside scope of goal and major themes.
				Delete	Received from WG #6. Approach 6.6.B: Establish A Mechanism For Increased Involvement Of Operators In The Development Of Localized ATC Procedures Outside scope of goal and major themes.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				Delete	Received from WG #6. Initiative 6.6.10: Develop criteria for the certification of designees enabling them to develop instrument approach and departure procedures in accordance with existing FAA criteria. (FY 1996) Outside scope of goal and major themes.
				Delete	Received from WG #6. Initiative 6.6.11: Air Traffic will place a great deal of emphasis on user involvement in procedures development and will hold regular and numerous regional listening sessions with users. Air Traffic, in consultation with primary users, accomplished development of FMS approaches in 1994. Additional sites are planned for 1995. (Initiative 6.6.11) (FY 1995) Outside scope of goal and major themes.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				Delete	Received from WG #6. Approach 6.6.C: Maximize The Use Of SID/STAR Profiles Outside scope of goal and major themes.
				Delete	Received from WG #6. Initiative 6.6.12: Incorporate dynamic user flight intention data in the ETMS. (FY 1996) Outside scope of goal and major themes.
				Delete	Received from WG #1. Issue 1.7: Aviation Problem And Adverse Trend Information Is Not Available From The FAA Similar to Issue 3.3.
				Delete	Received from WG #1. Initiative 1.7.1: Develop a plan to make NASDAC data available. (FY 1995) Similar to Issue 3.3.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				Delete	Received from WG #1. Initiative 1.7.2: Develop a plan for the use of de-identified digital in-flight operational information to monitor aircraft status and operational events. (FY 1995) Similar to Issue 3.3.
				Delete	Received from WG #1. Approach 1.7.A: Offer Easily Accessible Safety Information System Similar To Commercially Available On-Line Information Systems Similar to Issue 3.3.
				Delete	Received from WG #1. Initiative 1.7.3: Initiate cooperative digital data acquisition with industry for research to develop analysis strategies. (FY 1996) Similar to Issue 3.3.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				Delete	Received from WG #1. Initiative 1.7.4: Implement the use of de-identified digital in-flight operational information to monitor aircraft status and operational events. (FY 1997) Similar to Issue 3.3.
				Delete	Received from WG #1. Initiative 1.7.5: Initiate a process to use industry-collected data to identify systemic problems related to aircraft design and manufacture. (FY 1997) Similar to Issue 3.3.
				Delete	Received from WG #1. Initiative 1.10.2: Establish the national database for aviation human factors research as a national resource and coordination mechanism. (FY 1995) Outside scope of goal and major themes. This looks like a task for the FAA RE&D Advisory Committee Human Factors work group.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				Delete	Received from WG #1. Initiative 1.10.5: Validate a process to access, integrate, and analyze flight crew human factors data relevant to aviation safety. (FY 1996) Outside scope of goal and major themes. This looks like a task for the FAA RE&D Advisory Committee Human Factors work group.
				Delete	Received from WG #4. Issue 4.5: Increase The Usefulness Of Flight Data Recorders Similar to Issue 3.2.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				Delete	Received from WG #4. Approach 4.5 A: – Add TCAS Advisories As DFDR Parameter, Possibly Others – Develop Data Analysis Programs To Process DFDR Readout For FOQA – Data Link Aircraft Performance Parameters To Operator Similar to Issue 3.2.
			✓		Received from WG #4. Initiative 4.5.1: Policy change in development in response to ATA request. (2/95)
			✓		Received from WG #4. Initiative 4.5.2: Develop a plan for the use of de-identified digital in-flight operational information to monitor aircraft status and operational events. (FY 1995)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				Delete	Received from WG #4. Initiative 4.5.3: Initiate cooperative digital data acquisition with industry for research to develop analysis strategies. (FY 1996) Similar to Issue 3.2.
				Delete	Received from WG #4. Initiative 4.5.4: Implement the use of de-identified digital in-flight operational information to monitor aircraft status and operational events. (FY 1997) Similar to Issue 3.2.
				Delete	Received from WG #4. Initiative 4.5.5: Initiate a process to use industry-collected data to identify systemic problems related to aircraft design and manufacture. (FY 1997) Similar to Issue 3.2.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				Delete	Received from WG #4. Initiative 4.5.6: Determine applicability of digital in-flight operational information and simulator training information to pilot training and qualification. (FY 1997) Similar to Issue 3.2.
				Delete	Received from WG #4. Initiative 4.5.7: Begin using industry-collected data to identify systemic problems in aircraft fleets, aviation personnel, and maintenance. (FY 1997) Similar to Issue 3.2.
				Delete	Received from WG #4. Approach 4.5.B: Create Systems To Ensure Protection Of DFDR Data For FOQA Similar to Issue 3.2.
				Delete	Received from WG #4. Initiative 4.5.8: An FAA policy change is in development. (2/95) Similar to Issue 3.2.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
			✓		Received from WG #4. Initiative 4.5.9: Administration policy determination necessary. Issued.
				Delete	Received from WG #4. Initiative 4.5.10: Develop FOQA AC guidance (ATA Task Force); will begin with initial products provided under Flight Safety Foundation contract for prototype FOQA program. (FY 1995) Similar to Issue 3.2.
				Delete	Received from WG #4. Initiative 4.5.11: A Task Force is in place to deal with use of FOQA data. (Ongoing) Similar to Issue 3.2.
				Delete	Received from WG #4. Initiative 4.5.12: Implement the use of de-identified digital in-flight operational information to monitor aircraft status and operational events. (FY 1997) Similar to Issue 3.2.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				Delete	Received from WG #4. Initiative 4.5.13: Initiate a process to use industry-collected data to identify systemic problems related to aircraft design and manufacture. (FY 1997) Similar to Issue 3.2.
				Delete	Received from WG #4. Initiative 4.5.14: Determine applicability of digital in-flight operational information and simulator training information to pilot training and qualification. (FY 1997) Similar to Issue 3.2.
				Delete	Received from WG #4. Initiative 4.5.15: Begin using industry-collected data to identify systemic problems in aircraft fleets, aviation personnel, and maintenance. (FY 1997) Similar to Issue 3.2.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #3: SAFETY DATA COLLECTION AND USE

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				Delete	Received from WG #4. Initiative 4.6.4: Develop a plan for the use of de-identified digital in-flight operational information to monitor aircraft status and operational events. (FY 1995) Redundant with 4.5.2. Already completed by WG #4.
				Delete	Received from WG #4. Initiative 4.6.5: Begin using industry-collected data to identify systemic problems in aircraft fleets, aviation personnel, and maintenance. (FY 1997) Redundant with 4.5.7 and 4.5.15.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Issue 4.1 – Human Factors/Situational Awareness Systems				Content	Human Factors And Situation Awareness
	Update implementation strategies for the National Plan for Civil Aviation Human Factors. (Initiative 4.1.1) (FY 1995)		✓		
				New	New Initiative: Begin to conduct the research identified in the National Plan. (FY 1996)
				New	New Initiative: Develop suitable distribution plan of the National Plan research results. (FY 1996)
				New	New Initiative: Update the National Plan for Civil Aviation Human Factors to reflect the findings of the FAA Human Factors Study Team. (FY 1996)
	Define human factors requirements in advanced maintenance concepts. (Initiative 4.1.2) (FY 1995)			Date	FY 1996 (Expected completion date is February 1, 1996.)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	FAA will initiate an effort to develop a Maintenance Resource Management System for maintenance personnel using the CRM model. (Initiative 4.1.3) (FY 1995)			Date	FY 1996
	Establish the national database for aviation human factors research as a national resource and coordination mechanism. (Initiative 4.1.4) (FY 1995)			Date Content	FY 1996 Expand the national database for aviation human factors to include all research descriptions, results, and publications relevant to aviation.
	Strengthen ties with DOD and DOT internal elements for increased leverage of human factors technology transfer and enhanced coordination. (Initiative 4.1.5) (FY 1995)			Date Content	FY 1996 Identify and implement methods to be utilized for the sharing and coordination of information about human performance and human-system interaction among appropriate government, industry, and academic groups.
Approach 4.1.A – Assure Human Centered Design					
	Publish human factors design standard. (Initiative 4.1.6) (FY 1995)			Date Content	FY 1996 Develop and provide principles, guidelines, standards, and evaluation criteria for human-centered design.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Complete full-scale prototypes of CTAS/TMA and begin operational implementation accounting for human impact. (Initiative 4.1.7) (FY 1995)			Date Content	FY 1996 Complete full-scale prototypes of CTAS/TMA and begin operational implementation accounting for human performance considerations. Modified initiative number from 4.1.7 to 4.1.8.
	Complete definition of Airport Surface Automation functional requirements considering human factors data, in cooperation with airport operators and other ATC system users. (Initiative 4.1.8) (6/95)		✓	Date Content	FY 1995 Complete definition of Airport Surface Automation specifications considering human-centered design principles, guidelines, and criteria in cooperation with airport operators and other ATC system users. Modified initiative number from 4.1.8 to 4.1.7.
	Conduct full-scale operational demonstration of ASTA surveillance and automation functionality on airport surface operations at selected airports, analyzing human factors elements therein. (Initiative 4.1.9) (FY 1996)			Content	Conduct full-scale operational demonstration of ASTA surveillance and automation functionality on airport surface operations at selected airports to permit analysis of human factor elements therein.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Initiative: Complete definition of Airport Surface Automation specifications considering human-centered design principles, guidelines, and criteria in cooperation with airport operators and other ATC system users. (FY 1997)
	Provide initial gate-to-gate ATC automation services based on AAS, ASTA, DGPS, and human factors considerations fully integrated into Airspace Automation Operations. (Initiative 4.1.10) (FY 1998)	✓		Content	Change AAS to advanced automation.
	Commission non consolidated TRACON automation functions, fully considering human factor elements. (Initiative 4.1.11) (FY 1998)	✓			
	Develop advanced CHI prototypes for en route R-side and D-side. (Initiative 4.1.12) (FY 1998)	✓			
Approach 4.1.B – Improve Take-Off & Landing Performance Monitoring					

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	FAA monitoring NASA research and development program for possible operational impacts (ATOPS). (Initiative 4.1.13) (Ongoing)			Date Content	FY 1996 The FAA will evaluate research by NASA and others on the ATOPS to determine safety benefits.
Approach 4.1.C – Improve Airport Surface Operations					
	A simple, low-tech and low-cost solution, such as paint marking, can be deployed. A new specification to improve pavement markings by using beads in paint will be issued by FAA. (Initiative 4.1.14) (5/95)			Date	FY 1996
	Define surface systems architecture. (Initiative 4.1.15) (FY 1995)			Date	FY 1996
	Develop operational concept and requirements for the 21st century airport. (Initiative 4.1.16) (FY 1995)			Date	FY 1996
	Issue design standards for automatic control of airfield lighting. (Initiative 4.1.17) (FY 1995)		✓		Co-chairs to verify completion.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Complete definition of Airport Surface Automation functional requirements considering human factors data, in cooperation with airport operators and other ATC system users. (Initiative 4.1.18) (6/95)		✓	Date Content	FY 1995 Complete definition of Airport Surface Automation functional requirements considering human-centered design principles, guidelines, and criteria in cooperation with airport operators and other ATC system users. Consistent with Initiative 4.1.7.
	Implement data link for GPS -based ADS capability on the airport surface. (Initiative 4.1.19) (FY 1998)	✓			
Approach 4.1.D – Reduce Wake Vortex Vulnerability					
	Revise recommended standards for Wake Vortex separation. (Initiative 4.1.20) (7/95)			Date	FY 1996

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Initiative: Explore technologies, such as LIDAR, which can detect clear air turbulence (including wake vortices and mountain wave turbulence) on the ground and in-flight. If practical and effective, certify such systems for use on aircraft and deploy at airports which are particularly susceptible to clear air turbulence. (FY 1996) Consistent with new Issue, "Turbulence Detection".
Approach 4.1.E – Reduce CFIT Exposure					
	Air Carriers install equipment in accordance with the FAA regulations for GPWS. (Initiative 4.1.21) (Ongoing)			Date Content	FY 1996 Add: (*Explore the possibility of mandating existing systems in all carriers by the end of FY 1996.*)
				New	New Initiative: The FAA will certify GPWS incorporating look ahead technology to replace existing (altimeter based) GPWS. (FY 1996)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Joint ATA/FAA Task Force and Boeing/Flight Safety Foundation initiatives are underway. (Initiative 4.1.22) (Ongoing)		✓	Date	FY 1995
				New	New Approach: Improve Aircraft Certification Process
				New	New Initiative: Provide human performance/crew centered design criteria and training for airworthiness/ certification personnel. (FY 1996)
				New	New Approach: Make Timely Utilization Of Transport Airplane Directorate Study
				New	New Initiative: Endorse, circulate, and implement the Report and Recommendations of the FAA's Human Factors Study Team sponsored by the Transport Airplane Directorate. (FY 1996)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Issue 4.2 – NAS/Air Traffic Systems/Airports					
Approach 4.2.A – Enhance ATC					
	Clearly defined role and direction of ATCSCC in strategic and tactical management of operations in global air traffic management system. (Initiative 4.2.1) (FY 1995)			Delete	Moved to WG #2.
	Expand the data link delivery of pre-departure clearances to 27 additional airports. (Initiative 4.2.2) (FY 1995)			Date	FY 1996
	Establish two-way satellite-based data link communications capability in oceanic airspace. (Initiative 4.2.3) (FY 1996)	✓			
				New	New Initiative: Establish two-way satellite-based voice link communications capability in oceanic airspace. (FY 1997)
	Provide ATIS via data link at 60 airports. (Initiative 4.2.4) (FY 1996)	✓			

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Begin operational use of Oceanic ATC procedures based upon GPS and two-way data link operations to achieve real benefits for equipped users in oceanic airspace. (Initiative 4.2.5) (FY 1996)			Content	Begin operational use of Oceanic ATC procedures based upon GPS and two-way data link operations.
Approach 4.2.B – Prevent Runway Incursions					
	Define surface systems architecture. (Initiative 4.2.6) (FY 1995)			Date	FY 1996
	FAA will issue Revised Runway Incursion Plan. (Initiative 4.2.7) (3/95)		✓		
	Complete definition of Airport Surface Automation functional requirements considering human factors data, in cooperation with airport operators and other ATC system users. (Initiative 4.2.8) (6/95)		✓	Date Content	FY 1995 Complete definition of Airport Surface Automation functional requirements considering human-centered design principles, guidelines, and criteria in cooperation with airport operators and other ATC system users. Consistent with Initiatives 4.1.7 and 4.1.18.
	Implement data link for GPS-based ADS capability on the airport surface. (Initiative 4.2.9) (FY 1998)	✓			

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Issue RFP for ASDE-X radars. (Initiative 4.2.10) (FY 1997)	✓			
	Implement GPS-based ADS on the airport surface. (Initiative 4.2.11) (FY 1998)	✓			Duplicate of 4.3.17.
Approach 4.2.C – Expand TCAS Utilization					
	Initiate a demonstration of participatory separation utilizing TCAS/ACAS for in trail descent and wake vortex separation. (Participatory separation occurs when the pilots of two aircraft request the procedure to maintain separation of their aircraft using only their own onboard systems.) (Initiative 4.2.12) (FY 1996)			Content Delete	Remove "and wake vortex separation" from first sentence. Moved to WG #2.
Approach 4.2.D – Implement Non-Verbal Communications					
	Achieve agreement with user community on implementation of two-way data link. (Initiative 4.2.13) (FY 1995)			Date	FY 1996
	Implement ODL in Oakland and Anchorage (FY 1997) ARTCC. (Initiative 4.2.14) (FY 1996)	✓			

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Complete definition of Data Link System to support DGPS and other CNS/ATM operations. Achieve early approval of 1030 MHz for DGPS transmission (per draft RTCA report and industry endorsement). (Initiative 4.2.15) (FY 1996)			Content	Complete definition of Data Link System to support DGPS and other CNS/ATM operations.
	Deploy Data Link Processor, Phase 2 (DLP-2), which will disseminate alphanumeric weather products and en route ATC clearances including warnings, directly to the cockpit. (Initiative 4.2.16) (FY 1998)			Delete	Related to 2.8.3.
	Establish two-way data link communications capability throughout domestic en route and terminal airspace. (Initiative 4.2.17) (FY 1998)	✓			(Note 4.2.3 for oceanic.)
Issue 4.3 – Navigation					
Approach 4.3.A – Improve Non-Precision Navigation Operations – LORAN - By Geographic/Customer Need – Use FMS LNAV/VNAV					
	130 LORAN-C approaches have been developed. (Initiative 4.3.1)			Date	FY 1996

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	FAA will issue enhanced guidance for field approvals. (Note: ATA Task Force is working on expansion of FMS arrival and departure procedures.) (Initiative 4.3.2) (FY 1995)			Date	FY 1996
Approach 4.3.B – Implement GPS Capabilities ASAP					
	NOTE: 90 percent of existing instrument runways will have GPS approach capability using "overlay" program. (Initiative # - None) (3/95)			Delete	
	Initiate MOPS for GPS as a sole means of navigation in domestic airspace and begin use of GPS in this role in both domestic and oceanic areas. (Initiative 4.3.3) (FY 1995)			Date	FY 1996 Awaiting final approval and full vote.
	Initiate contract for development of wide area differential GPS. (Initiative 4.3.4) (FY 1995)		✓		
	Complete feasibility demonstration testing for CAT II/III precision approaches and landings. (Initiative 4.3.5) (FY 1995)		✓		
	Approve GPS use as a primary means for oceanic navigation. (Initiative 4.3.6) (FY 1995)		✓		

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Develop new GPS instrument approach procedures at a rate of 500 per year. (Initiative 4.3.7) (FY 1996)			Content	Create the capability to develop new GPS instrument approach procedures at a rate of 1400 per year.
	Develop and implement terminal instrument procedures criteria, procedures development standards, and flight inspection policy and standards for DGPS CAT II/III. (Initiative 4.3.8) (FY 1996)	✓		Delete	Related to 4.3.14.
	Complete definition of Data Link System to support DGPS and other CNS/ATM operations. Achieve early approval of 1030 MHz for DGPS transmission (per draft RTCA report and industry endorsement). (Initiative 4.3.9) (FY 1996)			Content Delete	Complete definition of Data Link System to support DGPS and other CNS/ATM operations. Duplicate of 4.3.19 (as modified).
	Begin operational use of Oceanic ATC procedures based upon GPS and two-way link operations to achieve real benefits for equipped users in oceanic airspace. (Initiative 4.3.10) (FY 1996)			Content Delete	Expand operational use of Oceanic ATC procedures based upon GPS and two-way link operations. (Initiative 4.3.10) (FY 1997) Related to 4.2.5. Move to WG #2.
	Implement Wide Area Augmentation System for GPS to publicize CAT I operations. (Initiative 4.3.11) (FY 1997)			Delete	The contract has already been awarded for this item.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Determine feasibility of GPS for CAT II and CAT III operations. (Initiative 4.3.12) (FY 1996)		✓		
	FAA will formulate a policy on ILS/MLS/GPS in support of worldwide transition planning and will present to ICAO for Communications and Operations meeting. (Initiative 4.3.13) (3/95)		✓		
	Develop and implement terminal instrument procedures criteria, procedures development standards, and flight inspection policy and standards for DGPS CAT II/III. (Initiative 4.3.14) (FY 1996)			Date	FY 1997 Related to 4.3.8.
	Develop new GPS instrument approach procedures at a rate of 500 per year. (Initiative 4.3.15) (FY 1996)			Content Delete	Create the capability to develop new GPS instrument approach procedures at a rate of 1400 per year. Duplicate of 4.3.7 (as amended).
	Conduct demonstration/validation risk reduction activities using industry provided subsystem for future terminal aircraft and weather surveillance system. (Initiative 4.3.16) (FY 1997)			Date Content	FY 1996 Demonstrate/validate risk reduction benefits of weather and traffic products acquired by local surveillance systems, delivered to aircraft, ATC facilities, air carriers, and any combination of them.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Implement GPS-based ADS on the airport surface. (Initiative 4.3.17) (FY 1998)	✓			Duplicate of 4.2.11.
	Work in progress to approve CAT I. (Initiative 4.3.18) (FY 1997)			Delete	Moved to WG #6.
Approach 4.3.C – Support 'Autonomous Aircraft' Development					
	Complete definition of Data Link System to support DGPS and other CNS/ATM operations. Achieve early approval of 1030 MHz for DGPS transmission (per draft RTCA report and industry endorsement). (Initiative 4.3.19) (FY 1996)			Content	Complete definition of Data Link System to support DGPS and other CNS/ATM operations. Consistent with 4.2.15.
	Begin operational use of Oceanic ATC procedures based upon GPS and two-way link operations to achieve real benefits for equipped users in oceanic airspace. (Initiative 4.3.20) (FY 1996)			Date Content	FY 1997 Expand operational use of Oceanic ATC procedures based upon GPS and two-way link operations. Consistent with 4.2.5
	Develop and implement terminal instrument procedures criteria, procedures development standards, and flight inspection policy and standards for DGPS CAT II/III. (Initiative 4.3.21) (FY 1996)	✓			

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Implement Wide Area Augmentation System for GPS to publicize CAT I operations. (Initiative 4.3.22) (FY 1997)			Delete	The contract has already been awarded. Consistent with 4.3.11.
	Establish reduced oceanic separation standards based on GPS and ADS. (Initiative 4.3.23) (FY 1997)			Content	Establish reduced oceanic separation standards based on CNS/ATM.
	Implement GPS-based ADS on the airport surface. (Initiative 4.3.24) (FY 1998)			Delete	Same as 4.3.17 and 4.2.11.
	Implement GPS-based ADS surveillance capabilities into en route and terminal automation systems. (Initiative 4.3.25) (FY 1998)	✓			
	Approve GPS-based CAT I operations as a primary means in the United States. (Initiative 4.3.26) (FY 1998)			Content	Approve GPS-based CAT I approach as a primary precision landing aid in the United States.
Issue 4.4 – Structural Icing				Delete	Moved to WG #2.
	Complete east coast field testing for observation and forecasting of ice. (Initiative 4.4.1) (FY 1996)			Date Delete	FY 1999 Moved to WG #2.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Support airport technology research and development to develop environmentally acceptable alternatives for de-icing and anti-icing agents. (Initiative 4.4.2) (FY 1997)	✓			
Approach 4.4.A – Build Central De-Icing Facilities - Multiple Aircraft, Runway End – Develop New De-Icing Fluids – Greater Holdover, Lower Cost, Earth Friendly					
	FAA has enabled eligibility for funding under the AIP. Criteria are in existing AC 150-5300-14. (Initiative 4.4.3)		✓		
	New de-icing fluid holdover table under development; runway de-icing fluids being tested. (Initiative 4.4.4) (FY 1996)		✓		
	Testing of innovative ice prevention and removal for airport surfaces. (Initiative 4.4.5) (FY 1997)			Content	Test innovative ice prevention and removal for airport surfaces and issue regulatory AC, if satisfactory.
	Publish an AC for runway surface ice prevention based on testing results. (Initiative 4.4.6) (FY 1998)			Delete	Covered in 4.4.5 and does not address structural icing.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Initiative: Evaluate existing technology for remote sensing and real time reporting of adverse runway conditions. (Completion Date TBD.)
Approach 4.4.B – Install Ice Detection And Warning Systems					
	Evaluate an optical-based aircraft surface ice detection system. (Initiative 4.4.7) (FY 1995)			Date Content	FY 1996 Evaluate optical-based and laser aircraft surface ice detection systems.
	Evaluate infra-red aircraft surface ice detection system. (Initiative 4.4.8) (FY 1998)			Delete	Consolidated into Initiative 4.4.7.
Approach 4.4.C – Install Ice Rejection Coatings					
	Conduct research on ice shedding materials and coatings. (Initiative 4.4.9) (FY 1996)			Date Content	Research to be initiated in FY 1995, follow-up to move into FY 1997. Begin research on ice shedding materials and coatings.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 4.4.D – Evaluate Anti-Ice/De-Icing Systems					
	Project under current development to evaluate certification rules for flight in icing conditions. FAA will publish project plan and milestones. (Initiative 4.4.10) (FY 1995)			Date	FY 1996
Issue 4.5 – Increase The Usefulness Of Flight Data Recorders				Delete	Issue 4.5 and all of its' related initiatives and approaches have been moved to WG #3.
	Policy change in development in response to ATA request. (Initiative 4.5.1) (2/95)		✓		
	Develop a plan for the use of de-identified digital in-flight operational information to monitor aircraft status and operational events. (Initiative 4.5.2) (FY 1995)		✓		

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 4.5.A – Add TCAS Advisories As DFDR Parameter, Possibly Others – Develop Data Analysis Programs To Process DFDR Readout For FOQA – Data Link Aircraft Performance Parameters To Operator				Delete	Moved to WG #3.
	Initiate cooperative digital data acquisition with industry for research to develop analysis strategies. (Initiative 4.5.3) (FY 1996)			Delete	Moved to WG #3.
	Implement the use of de-identified digital in-flight operational information to monitor aircraft status and operational events. (Initiative 4.5.4) (FY 1997)			Delete	Moved to WG #3.
	Initiate a process to use industry-collected data to identify systemic problems related to aircraft design and manufacture. (Initiative 4.5.5) (FY 1997)			Delete	Moved to WG #3.
	Determine applicability of digital in-flight operational information and simulator training information to pilot training and qualification. (Initiative 4.5.6) (FY 1997)			Delete	Moved to WG #3.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Begin using industry-collected data to identify systemic problems in aircraft fleets, aviation personnel, and maintenance. (Initiative 4.5.7) (FY 1997)			Delete	Moved to WG #3.
Approach 4.5.B – Create Systems To Ensure Protection of DFDR Data For FOQA				Delete	Moved to WG #3.
	An FAA policy change is in development. (Initiative 4.5.8) (2/95)			Delete	Moved to WG #3.
	Administration policy determination necessary. (Initiative 4.5.9)			Delete	Moved to WG #3.
	Develop FOQA AC guidance (ATA Task Force); will begin with initial products provided under Flight Safety Foundation contract for prototype FOQA program. (Initiative 4.5.10) (FY 1995)			Delete	Moved to WG #3.
	A Task Force is in place to deal with use of FOQA data. (Initiative 4.5.11) (Ongoing)			Delete	Moved to WG #3.
	Implement the use of de-identified digital in-flight operational information to monitor aircraft status and operational events. (Initiative 4.5.12) (FY 1997)			Delete	Moved to WG #3.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Initiate a process to use industry-collected data to identify systemic problems related to aircraft design and manufacture. (Initiative 4.5.13) (FY 1997)			Delete	Moved to WG #3.
	Determine applicability of digital in-flight operational information and simulator training information to pilot training and qualification. (Initiative 4.5.14) (FY 1997)			Delete	Moved to WG #3.
	Begin using industry-collected data to identify systemic problems in aircraft fleets, aviation personnel, and maintenance. (Initiative 4.5.15) (FY 1997)			Delete	Moved to WG #3.
Issue 4.6 – Obtain More Precise And Timely Maintenance Data					
Approach 4.6.A – Strain Gauge Stress Points For Detection Of Pending Failures					
	Demonstrate a prototype structural failure monitoring and advisory system. (Initiative 4.6.1) (FY 1999)			Delete	Moved to WG #5.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 4.6.B – Data Link Certain Parameters For Failure Prediction					
Approach 4.6.C – Expand Use Of Ultra-Violet Techniques For Crack And Corrosion Detection					
	Corrosion detection device will be developed and evaluated. (Initiative 4.6.2) (FY 1998)	✓			
Approach 4.6.D – Develop Automated Techniques For Crack/Fatigue Detection					
	Demonstrate a prototype structural failure monitoring and advisory system. (Initiative 4.6.3) (FY 1999)			Delete	Duplicate of 4.6.1.
Approach 4.6.E – Make Wider Use Of Electronic Maintenance Reporting And Recording					

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Develop a plan for the use of de-identified digital in-flight operational information to monitor aircraft status and operational events. (Initiative 4.6.4) (FY 1995)			Delete	Moved to WG #3.
	Begin using industry-collected data to identify systemic problems in aircraft fleets, aviation personnel, and maintenance. (Initiative 4.6.5) (FY 1997)			Delete	Moved to WG #3.
	Two ARAC recommendations are being developed: – SDR System Rule Change – Maintenance Recordkeeping NPRM (Initiative 4.6.6) (FY 1995)		✓	Content	One ARAC recommendation was developed and that was: – SDR System Rule Change – Maintenance Recordkeeping Notice of Proposed Rule (Initiative 4.6.6) Initiative 4.6.6, as modified, has been completed.
				New	New Initiative: A second ARAC recommendation is being developed: Maintenance Recordkeeping NPRM. (FY 1996)
Issue 4.7 – Improve The FAA Process					

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 4.7.A – Examine FAA Organizational Effectiveness					
	Implement FAA reorganization into Lines of Business. (Initiative 4.7.1) (FY 1995)		✓		
Approach 4.7.B – Improve FAA Standard Setting, Development And Implementation Process					
	Streamlining and re-engineering efforts are underway in all FAA organizations. (Initiative 4.7.2) (Ongoing)			Content	Streamline and re-engineer efforts that support rapid implementation of new technologies
	Establish a process that will enable members of the public to submit petitions for rulemaking through properly formatted documents, including all required analyses, to expedite action on ideas submitted by the general public. (Initiative 4.7.3) (FY 1995)		✓		
	Identify requirements and begin implementation of an integrated rulemaking information system that will consider such things as public access, regulatory archives, and automated text transfer for publication process. (Initiative 4.7.4) (FY 1995)		✓		

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Implement the newly developed system for monitoring the cumulative costs and benefits to aviation of newly enacted rules. (Initiative 4.7.5) (FY 1995)		✓		
				New	New Initiative: Assure a thorough benefit cost analysis is accomplished before requiring expenditures to resolve safety problems through the regulatory process. Accumulating safety costs should be considered. Include in this analysis other options for the expenditures of these safety funds which may result in more effective use of available funds. (Completion Date TBD.)
Issue 4.8 – Funding/Incentives					
	Administration policy determination necessary. (Initiative 4.8.1)			Date Content	FY 1996 Establish Administration policy for funding and incentives for new technologies.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 4.8.A – Minimize Cost Of New Technologies – Provide Appropriate Financial Incentives For Introduction Of New Technology – Reduce Obstacles To Adoption Of New Safety Technologies – Assess Appropriate Governmental Funding Role In Adopting New Safety Technology				Delete	
				New	New Issue: Turbulence Detection
				New	New Initiative: Explore technologies, such as LIDAR, which can detect clear air turbulence (including wake vortices and mountain wave turbulence) on the ground and in-flight. If practical and effective, certify such systems for use on aircraft and deploy at airports which are particularly susceptible to clear air turbulence. (FY 1996)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	Received from WG #6. Issue 6.5: Airport Surface Operations Need The Same Degree Of Care And Scrutiny As Inflight Operations
				New	Received from WG #6. Approach 6.5.B: Standardize Airport Surface Features And Utilize New Technologies To Enhance Safety
				New	Received from WG #6. Initiative 6.5.2: Define data link to support GPS-based ADS capability on the airport surface. (FY 1996)
				New	Received from WG #6. Initiative 6.5.6: Implement data link for GPS-based ADS capability on the airport surface. (FY 1998)
				New	Received from WG #6. Initiative 6.5.7: Implement GPS-based ADS on the airport surface. (FY 1998)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #4: APPLICATION OF EMERGING TECHNOLOGIES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	Received from WG #6. Initiative 6.5.4: Issue RFP for ASDE-X radars. (FY 1997)
				New	Received from WG #6. Initiative 6.5.1: FAA will issue Revised Runway Incursion Plan. (3/95)
				New	Received from WG #6. Initiative 6.5.5: Conduct full-scale operational demonstration of ASTA surveillance and automation functionality on airport surface operations at selected airports, analyzing human factor elements therein. (FY 1996)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #5: AIRCRAFT MAINTENANCE PROCEDURES AND INSPECTIONS

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Issue 5.1 – Maintenance And Recurrent Maintenance Training (FAR 121.375)		✓		Content	Delete "(FAR 121.375)"
Approach 5.1.A – FAA Should Consider Assignment Of An ARAC Task To: – Revise FAR To Set Standards-Minimums (FAR Parts 121 And 135, FAR Part 121, Subparts N & O) – RII Requirements Detailed For Training – Initial And Recurrent Training For Aircraft Type – Contract Maintenance And Servicing			✓ ✓ ✓ ✓ ✓		
	Recurrent training is being addressed by an ARAC working group. (Initiative 5.1.1) (Ongoing)		✓	Date	7/95 The initiative is now considered to be completed.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #5: AIRCRAFT MAINTENANCE PROCEDURES AND INSPECTIONS

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	FAA will propose an ARAC task to change the requirements for maintenance and preventive maintenance training programs (FAR 121.375). (Initiative 5.1.2) (FY 1995)		✓		
				New	New Approach: The FAA Should Establish Partnership Training Of Local FAA Inspectors With Maintenance Personnel At Their Respective Airlines
Issue 5.2 – Maintenance Human Factors		✓			
Approach 5.2.A – FAA Flight Standards Should Devote Additional Research Effort Toward Human Factors For Maintenance, Focused On Error Detection And Prevention		✓			

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #5: AIRCRAFT MAINTENANCE PROCEDURES AND INSPECTIONS

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Define human factors requirements in advanced maintenance concepts. (Initiative 5.2.1) (FY 1995)			Date Content	2nd Qtr FY 1997 Industry and FAA Steering Committees will work together to define human factors requirements in advanced maintenance concepts and establish a national database for aviation human factors in coordination with the Human Factors Guide developed in FY 1995.
	Establish the national database for aviation human factors research as a national resource and coordination mechanism. (Initiative 5.2.2) (FY 1995)		✓	Delete	Combined with Initiative 5.2.1.
	FAA will initiate job task analysis of the Maintenance Occupation to include findings of Northwestern University's job task analysis. (Initiative 5.2.3) (FY 1995)		✓		
				New	New Initiative: FAA will initiate an ARAC task to review and develop appropriate advisory and rulemaking materials. (First Quarter FY 1997)
Approach 5.2.B – Environmental Aspects (Light, Noise, Temperature)			✓		

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #5: AIRCRAFT MAINTENANCE PROCEDURES AND INSPECTIONS

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Updating Human Factors Guide for industry and government that includes information about environmental aspects related to maintenance. (Initiative 5.2.4) (FY 1995)		✓		
Approach 5.2.C – Maintenance Error Reporting Program – To A Central Database – To Upper Management		✓			
	FAA will develop a prototype maintenance error analysis tool. NOTE: Similar programs being developed by industry. (Initiative 5.2.5) (FY 1996)	✓			
				New	New Initiative: FAA will ensure that the reporter would not be subject to punitive action if the disclosure is about an unintentional error. (FY 1996)
				New	New Initiative: The FAA will exempt the maintenance error reporting program from the provisions of the FOIA. (FY 1996)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #5: AIRCRAFT MAINTENANCE PROCEDURES AND INSPECTIONS

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Initiative: Expedite release of AC 120.XX, Air Transportation Partnership for Safety Programs, and encourage development of other guidance materials to ensure consistent application throughout the FAA workforce. (FY 1996)
Approach 5.2.D – Maintenance Resource Management Should Be Integrated With CRM			✓	Content	Added acronym "(MRM)"
	FAA will initiate an effort to develop a Maintenance Resource Management System for maintenance personnel, developed using the CRM model. (Initiative 5.2.6) (FY 1995)			Content	Building on the completed 1995 MRM initiative using the CRM model as a guide, FAA will expand its effort in developing an MRM System for maintenance personnel which ensures open communication within the FAA and industry maintenance entities. (FY 1996)
Issue 5.3 – Approved Parts – Control – Suppliers/Vendors – Universal Documentation			✓		

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #5: AIRCRAFT MAINTENANCE PROCEDURES AND INSPECTIONS

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 5.3.A – FAA Should Work With Industry To Establish A Uniform Documentation System For Approved Parts, Centered On The FAA Form 8130-3			✓		
	The international aviation community will implement a common system for new part documentation (8130-3 tag). (Initiative 5.3.1) (FY 1995)		✓	Content	Replace the word "international" with "US" and delete the word "new".
	FAA will update Inspector guidance. (Initiative 5.3.2) (FY 1995)		✓		
Issue 5.4 – Internal Audits Need More Emphasis		✓			
Approach 5.4.A – Surpass The Continuous Analysis And Surveillance Program (FAR 121.373)			✓		
	FAA will initiate correspondence to all operators encouraging full implementation of AC 120-59 (Internal Evaluation Programs). (Initiative 5.4.1) (FY 1995)		✓		

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #5: AIRCRAFT MAINTENANCE PROCEDURES AND INSPECTIONS

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 5.4.B – Tie Together Quality Systems And Internal Procedures		✓			
	FAA will issue a NPRM revision to FAR 145 which requires internal quality control or audit programs in repair stations. (Initiative 5.4.2) (FY 1995)			Date	FY 1996
Approach 5.4.C – Oversight Of Regional And Commuter Code-Share Partners		✓			
	FAA will develop new AC to provide guidance for industry on appropriate emphasis and follow-through (should be focused on relationship between Part 121 and commuters/regionals). (Initiative 5.4.3) (FY 1996)	✓			
Approach 5.4.D – Direct Line To Senior Management			✓		
	FAA correspondence to all operators encouraging full implementation of AC 120-59 (Internal Evaluation Programs) will include emphasis on appropriate reporting levels. (Initiative 5.4.4) (FY 1995)		✓		

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #5: AIRCRAFT MAINTENANCE PROCEDURES AND INSPECTIONS

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Issue 5.5 – Maintenance Delays In DOT On-Time Reporting System		✓			
Approach 5.5.A – DOT Should Remove Maintenance From Reporting System – Intimidates Maintenance Personnel – Encourages Potentially Unsafe Practices – Risk Of Abuse Outweighs Benefit Of Information – Information Already Required For Submission To Local FAA		✓ ✓ ✓ ✓ ✓			
	Administration policy determination necessary. (Initiative 5.5.1) (FY 1996)	✓			
				New	New Issue: Increase The Usefulness Of Flight Data Recorders.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #5: AIRCRAFT MAINTENANCE PROCEDURES AND INSPECTIONS

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Approach: Create Systems To Ensure Protection Of DFDR Data For FOQA.
				Delete	Received from WG #4. Initiative 4.6.1: Demonstrate a prototype structural failure monitoring and advisory system. (FY 1999)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Issue 6.1 – Accelerate The Rate At Which GPS Procedures Are Designed, Approved, And Implemented					
				New	New Approach: Implement Terminal Area Procedures That Utilize FMS, GPS, And Other Technologies To Help Eliminate: – Controlled Flight Into Terrain In Terminal Area Operations – Traffic Conflicts – Ground Accidents/Incidents
				New	New Initiative: Maximum effort and attention must be provided by FAA management to create synergy between flight procedures and air traffic control to implement and maximize the benefits of flight management systems and FMS/GPS systems. (12/96)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 6.1.A – Elimination Of Non-Precision Approaches				Content	Add text: ...To Reduce CFIT In Terminal Area Operations.
	Issue expanded guidance for the installation of GPS receivers. (Initiative 6.1.7) (FY 1995)	✓			
				New	New Initiative: Revise and complete TSO-C129, AC 120, 29A, AC 120, 28D, and AC 120-CNS. (12/96)
Approach 6.1.C – Create Synergy Between Flight Procedures And ATC To Maximize Benefits Of FMS, GPS, TCAS, Etc.				Delete	New initiative created from this approach (see following initiative).
				New	New Initiative: Create synergy between flight procedures and ATC to maximize benefits of FMS and GPS. (12/96)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Air Traffic, in consultation with primary users, accomplished development of FMS approaches in 1994. Additional sites are planned for 1995. (Initiative 6.1.8) (FY 1995)	✓		Date Content	FY 1996 Air Traffic, in consultation with primary users, accomplished development of FMS procedures in 1994 and 1995. Additional sites are planned for 1996. (Initiative 6.1.8) (FY 1995, e.g., accelerate development of FAA Order 7100.11)
	FAA will conclude agreement with the users on the major policy decisions that must be made and establish initial policies in as many areas as possible, including: – The integration of ATC automation efforts; – The proper balance between ATC at the scene and traffic flow management; – The most efficient information flow and communication interfaces; – The future utilization of the GNSS and the roles it is expected to play; and – The ingredients of an Airport Surface Traffic Management System. (Initiative 6.1.9) (9/95)	✓		Content	Delete last bullet: "The ingredients of an Airport Surface Traffic Management System."

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Approach: Provide Sensor Independent Vertical Guidance To The Runway End On All Approaches With Various Decision Altitudes Predicated On Sensor Accuracy
	Develop new GPS instrument approach procedures at a rate of 500 per year. (Initiative 6.1.5) (FY 1996)	✓			
				New	New Initiative: To reduce the risk of CFIT during instrument approach operations, the FAA should refocus its procedures development program to expedite developing procedures utilizing vertical guidance to runway ends at airports served by operations conducted under FAR Parts 121/135. (Draft AC 12/96)
	FAA will formulate a policy on ILS/MLS/GPS in support of worldwide transition planning and will present to ICAO for Communications and Operations meeting. (Initiative 6.1.2) (3/95)		✓		
	Approve GPS-based CAT I operations as a primary means in the United States. (Initiative 6.1.6) (FY 1998)	✓			

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Initiative: Recognizing the limited resources, and the multitude of unique airports served by scheduled air carriers, the FAA must develop criteria for the certification of designees which enables them to develop and recommend instrument approach and departure procedures in accordance with existing FAA criteria and developing RNP criteria. (12/96)
				New	New Initiative: Recognizing the significant, inherent capability of modern aircraft with integrated cockpits and the inability of existing FAA instrument approach capability to allow stabilized vertical paths to the runway, every effort must be taken to continue the development of RNP procedure development criteria. (6/96)
Approach 6.1.B – Expediently Disseminate Information About GPS Approval Processes		✓			

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Initiative: Issue expanded guidance for the installation of GPS receivers.
				New	New Initiative: Immediately establish interim guidance for utilizing the navigation capability of FMS equipped aircraft to accomplish approaches being developed. (12/96)
				New	New Initiative: Establish final guidance for incorporating existing FMS equipped fleets of aircraft into the RNP environment. (12/96)
				New	New Approach: Provide More CAT 1, 2, 3 Approaches To More Runway Ends
	Conduct demonstration testing for CAT II/III precision approaches and landings. (Initiative 6.1.1) (2/95)	✓			

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Determine feasibility of GPS for CAT II and CAT III operations. (Initiative 6.1.3) (FY 1996)			Content	Add text: – Address integrity, availability, data link media, and other issues necessary for operational implementation. – Accelerate criteria development to support MMR and other GNSS applications for Cat II/III in ACs 120-29A/28D.
	Develop and implement terminal instrument procedures criteria, procedures development standards, and flight inspection policy and standards for DGPS CAT II/III. (Initiative 6.1.4) (FY 1996)	✓			
				New	New Approach: Traffic Conflicts – Improve Airborne Collision Avoidance Systems
	Implement GPS-based ADS surveillance capabilities into en route and terminal automation systems. (Initiative 6.1.11) (FY 1998)	✓			

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Initiate a demonstration of participatory separation TCAS/ACAS for in trail descent and wake vortex separation. (Participatory separation occurs when the pilots of two aircraft request the procedure to maintain separation of their aircraft using only their own onboard systems.) (Initiative 6.1.12) (FY 1996)		✓		
				New	New Approach: Ground Accidents/Incidents: – Eliminate Runway Incursions
	Implement GPS-based ADS on the airport surface. (Initiative 6.1.10) (FY 1998)	✓			
Approach 6.1.D – Accelerate The Approval Of CAT II/III DGPS Approaches				Delete	
	Complete feasibility demonstration testing for CAT II/III precision approaches and landings. (Initiative 6.1.13) (FY 1995)			Delete	
	Develop and implement terminal instrument procedures criteria, procedures development standards, and flight inspection policy and standards for DGPS CAT II/III. (Initiative 6.1.14) (FY 1996)			Delete	

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	FAA will formulate a policy on ILS/MLS/GPS in support of worldwide transition planning and will present to ICAO for Communications and Operations meeting. (Initiative 6.1.15) (3/95)			Delete	
	Determine feasibility of GPS for CAT II and CAT III operations. (Initiative 6.1.16) (FY 1996)			Delete	
Issue 6.2 – Standardization Is A Fundamental Ingredient For Safety In Flight Procedures				Content	Standardization Is A Fundamental Ingredient For Safety Procedures
Approach 6.2.A – Procedures That Affect Safety Should Be Standard Among All Carriers		✓			
	Develop a NPRM requiring scheduled commuter air carriers operating aircraft with more than nine seats to conform to the same level of safety required of major air carriers. (Initiative 6.2.1) (3/95)		✓		

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Initiative: The industry should establish a forum to address how to best share the operating procedures and techniques that currently exist, including the enhancement of safety and human factors. This forum is to be completed by end of fiscal year 1996. Topics such as, but not limited to the following, should be considered: – Special Event Training (loss of control); – Mode Awareness/Confusion; – De-icing and Weather Issues (turbulence); – Fatigue Issues; – TCAS/Air Carrier Operations Human Factors Task Force; – Safety/Checkairman; – Air Traffic Procedures/ Aircraft (i.e., slam dunk); and – Altitude Awareness Issues, Autoflight Human Factors Task Force
Approach 6.2.B – Review Process And Requirements For Designated Special Qualification Airports				Content	Review Process And Requirements For Designated Special Airport Qualification

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	FAA/Industry will review process and requirements for Designated Special Qualification Airports. (Initiative 6.2.2) (FY 1996)			Content	Add text: To ensure a standard level of safety, special qualification issues for obstacle rich mountain airports need to be identified and incorporated into existing AC 121.445 or other appropriate guidance material. Specific issues to be addressed include engine-out performance, navigation system failure, and validation flights. (To be completed by end of fiscal 1996)
Approach 6.2.C – Emphasize Utilization Rather Than Underlying Technology In New Equipment Training		✓			
	Transport Directorate Human Factors Task Force is ongoing. (Initiative 6.2.3)			Content	Recommend the Transport Directorate Human Factors Study Team focus on the changes in automated flight decks to identify potential issues related to aviation safety. (Ongoing)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Initiative: Continue the human factors efforts to identify potential safety issues as cockpit automation evolves along the lines initiated by the Transport Directorate Human Factors Study Team. (Ongoing)
				New	New Initiative: Recommend the Transport Directorate Human Factors study group focus on the increased need for Crew Resource Management as flightdecks become more automated. (Ongoing)
Approach 6.2.D – Standardize Charting And Display Symbologies		✓			
	Charting committee is actively engaged in standardizing symbology. (Initiative 6.2.4) (Ongoing)	✓			
Approach 6.2.E – AWOS				Delete	Moved to WG #2.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	FAA will investigate the feasibility of Workshop #2's recommendation to appoint a single senior level manager/office to expedite implementation and coordination of weather systems and services. (Note: Industry also recommends that, in the long run, NWS aviation functions be transferred to FAA.) (Initiative 6.2.5) (FY 1995)			Delete	Moved to WG #2.
	Increase the capability of on-site weather information to improve forecast and terminal reporting by implementing ASOS. (Initiative 6.2.6) (FY 1996)			Delete	Moved to WG #2.
	Provide further increase of the capability of on-site weather information to improve forecast and terminal reporting by further implementation of ASOS. (Initiative 6.2.7) (FY 1997)			Delete	Moved to WG #2.
	Complete transition plan for phasing-out human weather observers at ASOS sites. (The replacement of human weather observers will occur when adequate automated weather systems are installed and operational.) (Initiative 6.2.8) (FY 1998)				Moved to WG #2.
				New	New Approach: Fatigue/Fatigue Counter Measures

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Initiative: NASA should define and expeditiously complete the on-going research and communicate findings on Circadian rhythms with regard to fatigue and human performance. Should be completed by end of March 1996.
				New	New Initiative: Recommend the Transport Human Factors keep focused on the increased need for Crew Resource Management as flight decks become more automated. (Ongoing)
Issue 6.3 – Safety Considerations Need To Be Paramount In Procedures Development		✓			
Approach 6.3.A – Trust Fund Should Be Used For Aviation System Improvements And Safety And Should Be Controlled By A Trust Fund Commission					

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	(Industry strongly objects to diverting or withholding Trust Fund monies from aviation system improvement.) Administration policy determination necessary. (Initiative 6.3.1)			Content	Industry and labor continue to strongly object to diverting or withholding Trust Fund Monies from Aviation System Improvement. While we understand the Administration has the final policy determination, we strongly suggest a cooperative input effort before a final decision is made. (Ongoing)
Approach 6.3.B – Establish A Voluntary Disclosure Program That Can't Be Exploited For Journalistic Sensationalism				Delete	Moved to WG #3.
	An FAA policy change is in development. (Initiative 6.3.2) (2/95)		✓		
	Implement the use of de-identified digital in-flight operational information to monitor aircraft status and operational events. (Initiative 6.3.3) (FY 1997)			Content Delete	Slated for 1997 and should be modified to be completed in 1996. Moved to WG #3.
	Initiate a process to use industry-collected data to identify systemic problems related to aircraft design and manufacture. (Initiative 6.3.4) (FY 1997)			Content Delete	Expand to include Human Factors and develop a system to insure the transmittal of that information to all operators and a feedback mechanism to the manufacturers. Moved to WG #3.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 6.3.C – Establish A Uniform Level Of Safety For All Commercial Aviation			✓		
	Develop a NPRM requiring scheduled commuter air carriers operating aircraft with more than nine seats to conform to the same level of safety required of major air carriers. (Initiative 6.3.5) (3/95)		✓		Note: Completed pending distribution of the final rule on December 14, 1995.
Approach 6.3.D – Establish Flight Safety Departments Within All Commercial Carriers		✓			
	ATA/RAA will initiate correspondence to their members encouraging establishment of safety departments within their organizations. (Initiative 6.3.6) (2/95)		✓		

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Develop regulatory requirements to establish an independent safety department. (Initiative 6.3.7) (FY 1996)			Date Content	12/96 Develop regulatory criteria that establishes an effective, independent safety department. Develop criteria for effective implementation and operation of such departments including definitions of authority and responsibility to promote a safety culture.
				New	New Initiative: Develop criteria for effective implementation and operation of such departments including definitions of authority and responsibility, which promote a safety culture. (12/96)
Issue 6.4 – Appropriate Training For Utilization Of New Technology				Delete	Moved to WG #1.
Approach 6.4.A – Increased Use Of Designees				Delete	Moved to WG #1.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Develop criteria for the certification of designees enabling them to develop instrument approach and departure procedures in accordance with existing FAA criteria. (Initiative 6.4.1) (FY 1996)			Delete	Moved to WG #1.
Approach 6.4.B – Refresher Training For Maintenance Of Basic Flying Skills When Automation Fails				Delete	Moved to WG #1.
	Develop simulator training criteria and incorporate them in FAR Part 121 (Appendix H). (Initiative 6.4.2) (FY 1995)			Delete	Moved to WG #1.
Approach 6.4.C – Train To Reality				Delete	Moved to WG #1.
	Develop simulator training criteria and incorporate them in FAR Part 121 (Appendix H). (Initiative 6.4.3) (FY 1995)			Delete	Moved to WG #1.
Approach 6.4.D – Improve Training For FAA Inspectors				Delete	Moved to WG #1.
	Update Flight Standards Master Plan for inspector training. (Initiative 6.4.4) (Completed 1/95)			Delete	Moved to WG #1.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Develop comprehensive Training Development Process which will establish process for design, development, and evaluation of FAA inspector training consistent with best practices of ISD. (Initiative 6.4.5) (FY 1996)			Delete	Moved to WG #1.
Issue 6.5 – Airport Surface Operations Need The Same Degree Of Care And Scrutiny As Inflight Operations				Content	To Enhance The Safety Of Aircraft Operations The Aircraft Movement Area.
				New	New Approach: Exploit The Advantages Of CNS/ATM Technologies In Support Of The Safety Of Operations On The Ground
Approach 6.5.A – Runway Friction Measurement Needs To Be Standardized And Accurately Reported				Delete	
				New	New Approach: Improve Ground Communication Technologies And Procedures

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
Approach 6.5.C – Encourage Development And Use Of Data Link For Improved Communications				Delete	This approach made into a new initiative (see below).
				New	New Initiative: Encourage development and use of Data Link for improved communications. (6/96)
	Expand data link delivery of pre-departure clearances to 27 additional airports. (Initiative 6.5.13) (FY 1995)			Date	2/96
	Establish data link system architecture and system implementation plan. (Initiative 6.5.14) (FY 1995)	✓			
	Conduct flight trials of data link traffic and weather information services for general aviation. (Initiative 6.5.15) (FY 1995)		✓		
	Air Traffic will develop and refine standard taxi procedures and routes in coordination with ATPAC. (Initiative 6.5.16) (7/95)		✓		
				New	New Initiative: Expand use of standard taxi procedures to the top thirty airports. (FY 1996)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Approach: Improve Ground Navigation Technologies, Planning, Standards, Signage, And Procedures
	Establish standards for cockpit moving map displays to enhance situational awareness on the airport surface. (Initiative 6.5.3) (FY 1996)	✓			
				New	New Initiative: Establish standards and procedures for enhanced navigation for all weather operations on the airport surface. (12/96)
	Complete installation of new airport signs on all airports certified under FAR Part 139. (Initiative 6.5.11) (FY 1996)	✓			
				New	New Initiative: Improve the legibility of airport surface markings under all conditions. (9/96)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Initiative: The FAA should develop a plan to complete the above initiative at key airports in FY 1996.
				New	New Initiative: Improve airport charting in terms of the survey and the presentation. [Ref: RTCA SC 181] (12/96)
				New	New Initiative: Develop safe and orderly procedures for runway intersections use by commuter and other aircraft with share field capability regarding operational turbulence from turbo jet aircraft. This procedure to be documented in the respective carrier's operations specifications (performance data required) and accepted by air traffic management as normal, safe procedure. (12/96)
	Define data link to support GPS-based ADS capability on the airport surface. (Initiative 6.5.2) (FY 1996)			Delete	Moved to WG #4.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Implement data link for GPS-based ADS capability on the airport surface. (Initiative 6.5.6) (FY 1998)			Delete	Moved to WG #4.
	Implement GPS-based ADS on the airport surface. (Initiative 6.5.7) (FY 1998)			Delete	Moved to WG #4.
	Issue RFP for ASDE-X radars. (Initiative 6.5.4) (FY 1997)			Delete	Moved to WG #4.
	FAA will issue Revised Runway Incursion Plan. (Initiative 6.5.1) (3/95)			Delete	Moved to WG #4.
	Conduct full-scale operational demonstration of ASTA surveillance and automation functionality on airport surface operations at selected airports, analyzing human factor elements therein. (OLD Initiative 6.5.5) (FY 1996)			Delete	Moved to WG #4.
	6.5.A.4.c: The FAA should expeditiously complete development of criteria for LASHO operations. Ensure all LASHO procedures incorporate failure contingency provisions in the event of human or mechanical failure.			Delete	Moved to WG #2.
				New	New Initiative: Review landing clearance procedures to eliminate collisions on the runway. (6/96)

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
				New	New Initiative: Encourage consistent provision and use of aircraft type specific information with respect to varying runway braking conditions. (6/96)
				New	New Initiative: Develop standard policy for use of auto brake RTO mode in all normal operations. (6/96)
	FAA/industry group develop ICAO acceptable standard runway friction reporting system. (Initiative 6.5.9)			Date	9/96
	An ARAC working group will submit plans for runway pavement maintenance criteria. (Industry has developed criteria for measuring and reporting runway friction.) (Initiative 6.5.8) (3/95)	✓			
Issue 6.6 – User/ATC Cooperation Needs To Be Enhanced To Maximize The Benefits From Existing And Emerging Technologies				Delete	Moved to WG #2.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Initiate a national airspace analysis to identify system inefficiencies. (Initiative 6.6.1) (FY 1995)			Delete	Moved to WG #2.
	Complete strategic definition of relation between Traffic Management planning responsibilities, human factor elements, and "real-time" ATC responsibilities. Make sure these agreements are fully reflected in ongoing programs and plans for ground and cockpit automation. (Initiative 6.6.2) (FY 1995)			Delete	Moved to WG #2.
	FAA will accelerate the development of new ATC procedures (FAA Order 7100.11). (Initiative 6.6.3) (FY 1995)			Delete	Moved to WG #2.
Approach 6.6.A – Encourage The Use Of Data Link For Routine Communications (ATIS, PDC, Etc.)				Delete	Moved to WG #2.
	Achieve agreement with user community on implementation of two-way data link. (Initiative 6.6.4) (FY 1995)			Delete	Moved to WG #2.
	Establish data link system architecture and system implementation plan. (Initiative 6.6.5) (FY 1995)			Delete	Moved to WG #2.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Expand data link delivery of PDCs to 27 additional airports. (Initiative 6.6.6) (FY 1995)			Delete	Moved to WG #2.
	Provide ATIS via data link at 60 airports. (Initiative 6.6.7) (FY 1996)			Delete	Moved to WG #2.
	Conduct flight trials of data-link-based traffic and weather information services for general aviation. (Initiative 6.6.8) (FY 1995)			Delete	Moved to WG #2.
	Complete definition of Data Link System to support DGPS and other CNS/ATM operations. Achieve early approval of 1030 MHz for DGPS transmission (per draft RTCA report and industry endorsement). (Initiative 6.6.9) (FY 1996)			Delete	Moved to WG #2.
Approach 6.6.B – Establish A Mechanism For Increased Involvement Of Operators In The Development Of Localized ATC Procedures				Delete	Moved to WG #2.
	Develop criteria for the certification of designees enabling them to develop instrument approach and departure procedures in accordance with existing FAA criteria. (Initiative 6.6.10) (FY 1996)			Delete	Moved to WG #2.

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Air Traffic will place a great deal of emphasis on user involvement in procedures development and will hold regular and numerous regional listening sessions with users. Air Traffic, in consultation with primary users, accomplished development of FMS approaches in 1994. Additional sites are planned for 1995. (Initiative 6.6.11) (FY 1995)			Delete	Moved to WG #2.
Approach 6.6.C – Maximize The Use Of SID/ STAR Profiles				Delete	Moved to WG #2.
	Incorporate dynamic user flight intention data in the ETMS. (Initiative 6.6.12) (FY 1996)			Delete	Moved to WG #2.
Issue 6.7 – TCAS Traffic Information Is Underutilized					
				New	New Approach: Maximize The Safety Benefit Of The TCAS Which Requires The Presence Of An Operating Mode C Transponder On Intruder Aircraft In Order To Function

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	Initiate a demonstration of participatory separation utilizing TCAS/ACAS for in trail descent and wake vortex separation. (Participatory separation occurs when the pilots of two aircraft request the procedure to maintain separation of their aircraft using only their own onboard systems.) (Initiative 6.7.1) (FY 1996)	✓			
Approach 6.7.A – Expand Requirement For Mode C Fitment		✓			
	FAA will develop a tasking for ARAC to ascertain if current regulatory requirements are adequate. (Initiative 6.7.2) (FY 1995)			Date Content	FY 1996 FAA will develop a tasking for ARAC to ascertain if current regulatory requirements are adequate, and initiate a regulatory process requiring operating Mode C equipment for all aircraft in airspace in the vicinity of TCAS II equipped aircraft.
Approach 6.7.B – Require All PART 121 Aircraft To Install And Operate TCAS II				Content	Recommend All PART 121 Aircraft To Install And Operate Collision Avoidance Equipment

CROSSWALK OF ISSUES, APPROACHES, AND INITIATIVES FROM 1995 PLAN TO 1996 PLAN
WORKSHOP #6: DEVELOPMENT OF FLIGHT OPERATING PROCEDURES

Issue And Approach	FAA/Industry Initiatives	On Track	Complete	Modify	Modifications
	FAA will develop a tasking for ARAC to ascertain if current regulatory requirements are adequate. (Initiative 6.7.3) (FY 1995)			Date Content	FY 1996 FAA/Industry adopt policy that collision avoidance equipment should be installed on all PART 121 aircraft.
Approach 6.7.C – Require All Transport Category Aircraft Operating Under An Air Carrier Certificate To Install And Operate TCAS II					
	FAA will develop a tasking for ARAC to ascertain if current regulatory requirements are adequate. (Initiative 6.7.4) (FY 1995)			Date	FY 1996
Approach 6.7.D – Evaluate Other Shared Separation Responsibilities					
	Complete strategic definition of relation between Traffic Management planning responsibilities, human factor elements, and "real-time" ATC responsibilities. Make sure these agreements are fully reflected in ongoing programs and plans for ground and cockpit automation, to include the findings of the RTCA Free-Flight Report. (Initiative 6.7.5) (FY 1995)				